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THE SPLENDID SANSEVIERIA

B. Juan Chahinian



THE SPLENDID SANSEVIERIA

AN ACCOUNT OF THE SPECIES

by

B. JUAN CHAHINIAN

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a la memoria de mis padres D. Marcelo Chahinian
Da. Isabel Maria Andonian de Chahinian

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Introduction

I was honoured to be asked to write this introduction to a book which has long been required and anticipated.

B. Juan Chahinian has been a friend for many years and it has been a pleasure working with him in the International Sansevieria Society of which he is President. Juan is without doubt the most knowledgeable person alive on the genus *Sansevieria* and I am constantly surprised by his insight into species identification and his great attention to detail, no doubt partly a result of his engineering background. Juan has also spent a lot of time in field work in Africa and so his observations are not just from cultivation, although he is a skilled grower.

The last review of the genus was made in 1915 by N. E. Brown and this book is surely a big step in the direction of a badly needed revision. With the aid of top quality photography, Juan gives us an invaluable reference to species sometimes difficult to identify from just words and line drawings. This is very important when there is so much confusion in names, of which even the best botanic gardens are not immune.

I am delighted to introduce this book, which will provide the serious collector with the tool to sort out some of the species names, and will no doubt generate more interest in these plants and their diversity.

Alan Butler
Vivaio Brookside Nursery
Chairman & Editor of the International Sansevieria Society

Introduction by the Author

For years I have been asked to write a book on the *Sansevieria* species. The problems for me have always been the same: how many plants should I include? Should I produce a book for the beginner collector or a more complete work for the advanced ? Should it include a key or not? How many plants should I include?

After thinking about these matters, one comes to the conclusion that no work can possibly include all sansevierias that are in cultivation. Scores of them have no field provenance and a good number are, quite possibly, hybrids whose parentage is not known. A book for a beginner will, without a doubt, include information that is valuable for the advanced collector as well.

Another reason that stopped me from writing this book before, is the almost impossible task of identifying certain sansevierias that are validly described and published. I have included them in this book without a corresponding picture. If future investigation produces a living plant that totally responds to the description, so be it. In the meantime I am not going to try to deceive anybody with 100% misidentified sansevierias, which will *only add to the confusion*.

Producing a key to include all species known is not easy, not difficult, but rather an phenomenal endeavor which should take years of field work, study and research. It is my estimate that this cannot be accomplished in less than seven years of *full-time* work. Only once a monograph is produced can a judicious key be achieved. This is by no means an exaggeration, since sansevierias do not flower and fruit at will. In any case, this would result in a final monograph until new sansevierias are discovered. If one looks at modern work done by botanists on geographically limited areas that include a key, one will notice that the keys are both erroneous and incomplete. Conclusions based on only a very limited number of specimens studied abound. Lack of knowledge of the genus at large is pervasive.

Further, the existence of a very complicated key is of little or no use for both the beginner and advanced collector. A complicated key is nothing but a frightening nightmare for the collector, who soon gives up on it.

I have had the pleasure of seeing many of these plants in the field and working with them in my greenhouses and gardens both in California and Florida for more than twenty years. It is this experience that I would like to pass on to the readers by means of this book. To answer the questions stated at the beginning, I came to the conclusion that I am going to include as much information as I possibly can, present most of the sansevierias as I have seen them and produce an uncomplicated key that will include all the plants in this book and will hopefully enable the reader to sort out the sansevieria at hand.

So how does one identify a plant? The way is to go first to the sorting key, then leaf through the book trying to find a picture, or pictures, that look like the plant at hand. Then read the description, bearing in mind, that the plant under investigation may have different characters that could have been induced by cultivation. The picture alone is not good enough, neither is the description on its own. When both agree with the characters of the plant under investigation, save the observation mentioned above, then we have our plant identified.

In this book, the various sansevierias treated are either indicated to have flat or round leaves. However, there is not a clear dividing line between them. Further, only the leaves of few plants are flat throughout their length and certainly no leaf is entirely round. I prefer the term "round" to "cylindrical" as the latter conveys even more erroneously the shape of the leaves.

Flat leaves, in turn, can be strap shaped or spoon shaped. Again, the division line is fuzzier than the previous one.

Round-leaved sansevierias are even more controversial, even if we accept that the word "round" may be used for circular as well as elliptical cross-sections. An ever-present channel promptly does away with this classification.

Therefore, "flat leaf" will be a term applied to a leaf that is wider than thicker and "round leaf" will be applied to a leaf that is thicker than wider.

In dealing with dimensions, I have included them in both the metric and the English system. Many of the original dimensions, particularly of plants not fully identified at this time, came from N.E. Brown's work. In con-

verting these to the metric system, sometimes numbers turn out that can be awkward to read. The whole idea of my descriptions is to give a fast mental picture of the plant. In doing so, I prefer to use, e.g. 1 cm. for 3/8 in., rather than the more precise .95 cm. or 9.5 mm, which is still not exact. In dealing for so many years with this genus, I can assure with total confidence, that dimensions of the various parts of a sansevieria, though they could be measured very precisely, are not that important as they vary so much according to clone local conditions, lighting, watering, dry periods, maturity, etc., etc.

Similarly, where Brown indicated "with 5 to 9 longitudinal lines on back of the leaves" I have written "with longitudinal lines on the back of the leaves". If there are more lines, I indicate "with many lines", if there are less, "with a few lines". Again, the whole idea is to have an expeditious assessment of the appearance of the plant at hand and not spend time counting numbers of lines that, again I can assure you, can vary considerably.

When dealing with inflorescence and for the purpose of identification, the author founds it sensible to only include the type of inflorescence, the height, the number of flowers per cluster, the length of the tube and lobes. As the inflorescence is rarely present when the collector wants to identify a plant, I did not find it pertinent to include more than the information indicated. Further, even if the inflorescence is present, the height, that I am including, varies so radically that many times it is not of great importance. The length of the tube is indicated, which is easier to measure than the entire length of the flower. This length also varies. Even the number of flowers per cluster, present in one flower stalk, vary as well.

I have also included a few field pictures of some of the plants described. This will give the reader a feeling of how sansevierias look in habitat. Some of them are my own pictures from my three trips to Africa. Proper credit is given to every picture taken by other individuals.

The reader may notice, at times, that a picture of a larger, more mature, plant could have been depicted, rather than the more juvenile plant shown. Having my collection in southern Florida, I certainly do not have a shortage of large specimens. The fact is that, in the case of sansevierias, their various characters mostly show better on a picture of a smaller plant. Where a sansevieria has different juvenile and mature forms, I have tried to show

both.

Finally, let me say, that the study of sansevierias, as any other biological endeavor is an on-going proposition. This book cannot possibly cover all sansevierias known in cultivation and the new ones found in the field. Also, it should be said that many of the plants in cultivation are clearly hybrids. Further, the naming of a few of the plants is not final. Plant collecting deals with live entities. As presented in this book, the identification of these plants is to the best of the author's knowledge *at the present time*. Where such is doubtful, it will be indicated. Flaws are bound to happen. For the future, the state-of-the-art of sansevierias may then be found in the latest publications of the ISS Sansevieria Journal.

General Considerations

It is very important that the reader read the following considerations. The reason for this being, that there are many characters in *Sansevieria* that are common to all of them. These general characters or peculiarities are not dealt with in the descriptions of the plants. Further, some of the terms used in this book and known to botanists, may require a brief explanation to the reader.

One of them is **cross-banding**. Generally speaking, where existing, cross-banding will be more conspicuous in younger plants and also more conspicuous on the back than on the front of the leaf. Cross-banding will disappear as the leaf darkens with age and in plants grown in the shade, or deep shade, it will be non-existent as well. All comments on the descriptions of the plants in this book in regards to cross-banding darkening with age or being stronger on the back of the leaves have been totally omitted.

The word **stemless**, is a somewhat loose expression in usage applied to sansevierias. No sansevieria is stemless. As used in this book, and in Brown's monograph, it is a plant on which the end of the rhizome, or underground *stem*, produces leaves without itself further growing. Thus, there is no stem present above the substrate.

A **stolon** is a rhizome that grows above ground, usually not very thick. It can grow from the leaf bases or from above it. It is sometimes covered by scales that are many times dry.

The **adaxial** side is used to refer to the inside or upper side of the leaf facing the axis of the plant. The **abaxial** side, on the other hand, is the outside or lower side, opposite to the axis of the plant.

Round-leaved plants appear to have developed as an adaptation of flat leaves to brighter light and drier conditions. So whenever a leaf cutting produces an offset, the first leaves will be flattish, slowly developing, as it grows, into round leaves (see chapter on Cultivation and Propagation).

No separation has been made in this work within flat leaves for **spoon-shaped leaves** as there is no clear separation line between the latter

and the regular flat-leaved plants. Some sansevierias have long leaves that are quite petiolate and would qualify as “spoon-shaped” however, they do not quite fit the image of the popular concept of spoon-shaped. Another good example is *S. subspicata*, whose leaves show a considerable variation, some of them totally falling in the “spoon-shaped” category.

Reddish color, where indicated, is equivalent to *red-brown*, *chestnut* or *chestnut-brown* color as used by other authors. Note that this reddish color in most sansevierias also occurs at the bottom of the tip of the leaves or around a *withered damage* or *a hole in the leaf*. Whenever an edge has a reddish color, it is bordered by white and dried tissue. So, this last character is not going to appear on the descriptions.

Turgid round-leaved plants are mostly marked with longitudinal uninterrupted lines and/or with interrupted lines. The uninterrupted lines are devoid of stomata and these are precisely the lines where the leaves will shrink inward during the dry season. Flat-leaved plants do not have these lines, though they will shrink again upon lack of watering. All sansevierias, without exception, will regain their turgor once the rainy season resumes. This is a slow process that can take to more than one month, as noted in cultivation, where this phenomenon also occurs.

A **subulate point**, as found on the tip of a flat leaf with green edges, is a sudden narrowing of the leaf blade at the top that forms a cusp which is many times soft and pliable. A good example is found on *Sansevieria parva*, some of whose leaves present a long soft subulate point.

The **color** of flat-leaved sansevierias is always lighter on the abaxial side of the leaf than it is on the adaxial. This is a universal rule for the genus that appears to have no exception. This character is mentioned here and will *not* be mentioned on the descriptions following to avoid repetition. It should be pointed out here that all bluish-green colors, known among collectors as “blue”, e.g. “blue sansevierias”, lose their blue color, turning green and dark-green in time. This fact can prove somewhat troublesome in identifying species unless one considers some degree of variation in color to be of little or no importance.

A **distichous** growth form, as occurring in round-leaved sansevierias, is the arrangement of the leaves in a fan-like or 2-ranked manner, that is, the leaves growing more or less on a plane. In most species, sansevierias that are

described as having a distichous habit, may start growth having their leaves in all directions or in a **spiro-distichous** fashion, that is, on a plane that turns about the vertical axis of the plant, later to resume the growth on a plane as indicated on their description.

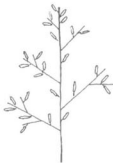
A **raceme** inflorescence is one where the flowers are attached to the stalk by pedicels at the base of the flower. When these pedicels are very short, it appears that the inflorescence is a spike inflorescence, which is an inflorescence where the flowers are attached directly to the flower stalk without any pedicel present. Such is the case of common wheat. When we say **spike-like raceme** inflorescence, we signify that it *appears* to be a spike inflorescence, when it is actually a raceme with short pedicels. The flowers have an articulation on the pedicels whose location varies from species to species, as does the pedicel length. When flowers wilt and fall off, they take with them the part of the pedicel above the articulation, leaving on the stalk the lower part, so any part left of the pedicel is part of the stalk

A **panicle raceme** is simply a raceme inflorescence that is branched.

All sansevieria inflorescences are in the form of a raceme. On a **capitate raceme**, all the flowers are crowded at the top of the stalk rather than distributed along part of the stalk's length. Having no pedicel articulation, when the flowers of this type of inflorescence wilt, they just droop and do not fall off. This is a distinguishing character of this type of inflorescence.



spike-like
raceme



panicle



capitate

Extra-floral nectar is the secretion, like dew, that can be seen at the bottom of the flowers in almost all sansevierias. Sometimes it also appears under the leaves of new growths off a stolon, where the aerial roots start to show. This nectar is deemed to attract ants, thus deterring other noxious insects that could damage the flower parts and interfere with pollination.

Juvenile forms often develop as a rosette and always have many more leaves than the mature plant. These forms, as one would expect, do not flower. Mature forms, in unusual cases, can sometimes develop juvenile forms which, in turn, remain and propagate as juvenile plants.

After flowering, sansevierias do not grow any further, but are guaranteed to produce new growth by means of rhiizomes or stolons. Once flowered, unlike other genera, the plant does not die. It will die, provided a long time is given. One can hardly say the plant is dying when leaf cuttings taking from it produce new offsets, or when, if severed from all new growth, it will still offset new plants.

Plants that have as yet not been described, may have their names shown in **single quotes** and with these names capitalized. These names are neither in Latin nor appearing to be in Latin. They are one clone of one population of field plants of the same species.

The word **channel** as applied in this book is a longitudinal depression along part or the entire length of the adaxial side of a leaf. A channel then, is always concave, otherwise it would not be a channel. N. E. Brown uses *concave channel* to mean *round channel* as opposed to *acute channel*, the latter meaning a channel that has a triangular or folded shape. The author uses in this book the words *round channel* and *acute channel*. As a result one can have a leaf with a round channel, with

either round edges or acute edges or an acute channel with round or acute edges. The figure on the left shows all possible cases. We shall see in this book a few sansevierias where the shape of the channel and/or the edges change on the same leaf. In many cases, the channel disappears on part of the leaf to present a cross-section than is entirely round or oval, occasionally with impressed longitudinal lines.



round channel
acute edges



acute channel
acute edges



round channel
round edges



acute channel
round edges

Sansevieria abyssinica

A stemless plant with a creeping rhizome 2 cm ($\frac{3}{4}$ in) in diameter. Leaves grow 1-2 to a growth, erect or spreading, to 60 cm (2 ft) long and 7.5 cm (3 in) wide. The shape is lanceolate and the leaf surface curving upward with margins reddish. Dark green cross-banded with lighter green, giving the leaf a bright appearance. Dull, not shiny, with a rough texture above and a very rough texture below, a character that seems to be always present on this plant. The leaves narrow slightly down to the base where they partially wrap the new leaves. Leaves are as rigid as sole-leather.

The inflorescence is in the form of a spike-like raceme with 4-5 flowers to a cluster.

As expected, the epithet comes from Abyssinia, now Ethiopia. The plant comes from the mountains near Jana.

This plant requires bright light to grow well. Not a fast grower.



Sansevieria aethiopica

This is a distinct plant and like many sansevierias has a wide range of growth forms. Stemless and with a stout creeping rhizome 3 cm (1¼ in) in diameter.

The plant has many narrow, thick leaves, growing in all directions. Leaves, dull, somewhat rough and stiff, about 18 cm (¾ in) wide and the length can reach 45 cm (18 in) or more. The size is very variable and so is the number of leaves on the various clones. The older, exterior, leaves are always shorter. With all these variations this is still a plant that is not difficult to identify because of the color, sometimes bluish, sometimes Nile-green, with darker cross-banding, sometimes without any cross-banding, the leaves always thick and erect or curving inwards, bordered by a reddish margin and dried fibers. Two other characters that seem to be always present are the dried tips, which I call the "wick", to which it resembles and the thick rhizome, more than 2.5 cm (1 in) in diameter, which is present even in small plants. These two



characters are very useful for identification. The inflorescence is in the form of a spike-like raceme.

A distinct species from southern Africa, that is widely distributed in south Zimbabwe, Botswana, Namibia and South Africa. The plant is seen growing in full sun. The word "aethiopica" in Latin does not refer to Ethiopia, which is in northern Africa, but to the southern part of Africa.

Flower stem 40-65 cm (16-30 in) long, 4-6 flowers per cluster, tube to 25 mm (1 in), lobes to 18 mm (3/4 in)

This plant needs bright light to be properly grown. Not a fast grower.



Sansevieria aethiopica. Tall clone with leaves ca. 60 cm (24 in) long in habitat in southern Zimbabwe.

Sansevieria angustiflora

A stemless plant with a creeping rhizome. Leaves up to 12 to a growth, ascending or spreading, stiff 45-60 cm (1 ½ -2 ft.) long, 2.5-7.5 cm (1-4 in) wide, 4-5 mm (approx. 3/16 in) thick at the middle. Narrowly lanceolate, acutely tapering from the middle up to a soft subulate green or withered point to 2.5 cm. (1 in.) long, narrowing below to a petiole with a round channel. Dull, green and marked with numerous transverse bands of paler green. Edges reddish, green or whitish when young.

Inflorescence, a spike-like raceme to 60 cm (2 ft) long, flowers 3-6 to a cluster, tube 18 mm (3/4 in), lobes 18 mm (3/4 in).

This plant comes from the Zululand in South Africa..

Curiously so, the epithet means "narrow flower" in Latin.

The identity of this sansevieria is not clear. No living specimens have survived and it does not seem to be too different from *S. thyrsiflora*.

Sansevieria arborescens

There has been controversial opinions as to this plant's identity, which has been confused with *S. bagamoyensis*. The plant grows in full sun in the lowlands of Kenya and up to the coast. The name of this sansevieria refers to the "tree-like" appearance of this plant. It grows on a thick stem, more than 3 cm (2 ¼ in) in diameter. The plant reaches 2.10m (7 feet) or more in height. The leaves grow in all directions, have a strap-like appearance and widen considerably where they meet the stem, wrapping it around. It is not easy at all to remove leaves from the stem. The leaves are quite flat and fibrous, not brittle at all, medium-green with a thin reddish edge. They have absolutely no markings whatsoever at any stage of growth. Being quite flat, the leaves curve down and give this plant the appearance of a *Dracaena*, which could have been one of the reasons for placing the entire genus under



An attractive group of *Sansevieria arborescens* lusciously growing in habitat, by the Kilifi-Malindi road, 36 Km from Malindi, Kenya.

Dracaenaceae.

The inflorescence is a spectacular panicle, growing off the top of the plant. Not difficult to grow, but it prefers bright light. This is a sculptural plant whether grown individually or in a multiple grouping, especially three of different heights in a large pot.



A close-up view of *Sansevieria arborescens* in habitat with its growth form strongly reminiscent of a *Dracaena*. Note the leaf bases wrapping almost all around the stem circumference. Leaves appear shrivelled close to the end of the dry season.

Sansevieria aubrytiana

Leaves coriaceous, reminding by its aspect, save the color and the texture, of *Phormium tenax* and distinguished from *S. longiflora*, to which it is quite close, by its greater vigor, by the lighter color of its leaves, which are strongly cross-banded on both faces.

These characters are more prominent than in *S. longiflora*. The leaves are generally wider than those of the latter and are also more acuminate.¹

N. E. Brown adds:

This plant comes from Gabon without precise locality.

The identity of the sansevieria in the picture seems to be acceptable, as this is the plant closest to *S. longiflora*, with the difference in characters mentioned by the author Carrière.

Sansevieria aubrytiana a plant quite close to *S. longiflora* but having a more conspicuous cross-banding.



1. NOTE: Carr., in Rev. Hortie (1861) 449. .Translated from original description in French by the author.

Sansevieria bagamoyensis

The name sansevieria comes from Bagamoyo, a locality on the Indian Ocean in Tanzania. As mentioned before, there has been a controversy about the identity of this sansevieria and *S. arborescens*.

This plant has a stem that can reach the height of a human being and taller. The leaves grow in all directions, are narrow, not more than 16 mm (5/8 in), thick and brittle. The color is light green and the leaves grow straight out having a very spiny point that lets itself be noticed if one moves the hand between the plants unaware of its presence. The edges have a very thin reddish color. The leaves do not have a trace of markings whatsoever at any stage of growth. The leaves widen much where they join the stem to about half the circumference of the stem, so it is easy to break them apart with horizontal movements alternating in both directions. This way of breaking off a leaf is quite impossible in the case of *S. arborescens*.

The inflorescence is a panicle raceme with flowers 2-4 to a cluster, tube 6 mm (1/4 in) long, lobes 6 mm (1/4 in).

A sculptural plant attractive as a single or in a group of multiple plants.



Sansevieria ballyi

This plant, formerly known as *Sansevieria* sp. 'Bally 12681' finally has a name. The plant has stolons, to 18 cm (ca. 7 in), 6 mm ($\frac{1}{4}$ in) thick, covered by dried sheaths, pale orange in color. It has a short stem that is not erect. The leaves, 6- 10, somewhat stiff, can reach 12 cm (5 in) or more, 8 mm ($\frac{5}{16}$ in) thick. The edges of the channel are acute and reddish. The leaves have a round groove on the adaxial side that can reach to $\frac{3}{4}$ of its length. Sometimes the groove is non-existent and the leaf quite cylindrical in shape. In this case the groove is relegated to the bottom just enough to let the newer leaf grow. The dark-green leaves are marked with light-green cross-banding and they end in a spiny tip. Surface of the leaves is rough.

The inflorescence is a spike-like raceme, 5cm (2 in) long, with 2 flowers per cluster, tube 18-22 mm ($\frac{3}{4}$ - $\frac{7}{8}$ in), lobes 10-13 mm ($\frac{3}{8}$ - $\frac{1}{2}$ in), thus corroborating P.R.O. Bally's notes of "*Sansevieria* aff. *gracilis*". The epithet commemorates the name of Peter Bally, a Swiss collector, botanist and artist who lived in Nairobi. Bally indicates the type was collected in the Kivuko Hills (corrected from Kivuto by L.E. Newton, the author), not too far



from the south end of Tsavo National Park East, Kenya.

This plant is now common in cultivation, not difficult to grow and lends itself beautifully to be grown in a hanging basket.

Sansevieria 'Bandipur'

Stemless plant with a creeping rhizome. Leaves 3-5m to 90 cm (3 ft) long, 17 mm (5/8 in) wide, 17 mm (5/8 in) thick form edge of channel to the rounded back of the leaf, at about mid-length. Leaves curved backwards, with a round channel running to the base of a very variable round cusp with a withered tip. The cusp varies from 3 mm (1/8 in) long and in some leaves to almost half the leaf length. Edge of the channel acute, withered, at times detaching into fibers. Leaves rough, dull, lighter green, cross-banded with many narrow bands of darker green, which extend over onto the cusp all the way to the tip; marked on the sides and back by several, mostly continuous, longitudinal impressed lines of darker green color.

Inflorescence a spike-like raceme. From Bandipur, Ghats, India.



Sansevieria bella

This is a sansevieria recently described by L.E. Newton. The plant has been described as “*aff. S. suffruticosa*” but the leaves are much thicker and have a more conspicuous cross-banding. He also indicates that *S. bella* has a different geographical distribution, south of the *S. suffruticosa*.

Some leaves, particularly the ones on the plants belonging to the author completely lack a channel. Newton does not mention this. Further, it appears to be a universal rule for all sansevierias that the cross-banding disappears with the darkening of the leaf with age. This plant is no exception. The predominant cross-banding then, does not appear to this author to have such relevance.

The inflorescence is a spike-like raceme 60 cm (24 in) long, with 7 flowers per cluster, tube 10-15 mm ($3/8$ - $5/8$ in), lobes 13-18 mm. ($1/2$ - $3/4$ in).



This sansevieria is quite close to *S. suffruticosa*, indeed, the author of this book thinks that it should have been described as a variety of the latter, the reason being that there are literally scores of plants within both the *S. suffruticosa* and *S. gracilis* group that look alike, have smaller or larger leaves, thinner or thicker leaves, longer or shorter channels, have different colors and cross-banding.

The meaning of the epithet is "beautiful" in Latin.

Sansevieria bracteata

A stemless plant with a creeping rhizome, very thick, orange-vermillion in color. Leaves erect, very thick and rigid, 37 - 60 cm (1 ¼ - 2 ft) long, 5 - 7 cm (2 - 2 ¾ in) wide, lanceolate, tapering into a point 6mm (¼ in) long or more and from the middle with a stout round channeled petiole, variegated on both sides with zig-zag pale green or whitish bands or blotches which are usually much wider than the dark green ones, alternating with them, two or three of these at the base, 2.3 cm (1 in) or more, the rest half as wide, closely placed and more or less spotted, margins hardened, reddish, sometimes with whitish edge.

The inflorescence is in the form of a spike-like raceme 45-60 cm (1 ½ - 2 ft) long, tube 89 - 114 mm (3 ½ - 4 ½ in) long, lobes 25 - 44 mm (1 - 1 ¾ in).

This sansevieria comes from Angola

The name in Latin means *provided with bracts*.

Sansevieria braunii

A stemless plant with a creeping underground rhizome. The leaves are flat, coriaceous, rigid, oblong-lanceolate, with an acuminate tip, 55 - 65 cm (1 $\frac{3}{4}$ - 2 $\frac{1}{4}$ in) long, 7- 11 cm (2 $\frac{3}{4}$ - 4 $\frac{1}{4}$ in) wide, slightly narrowing to the base, green, with blotches or bands of white. The edges of the leaves are reddish.



reddish.

Inflorescence a spike-like raceme to 45 cm (1 $\frac{1}{2}$ ft) long with very long flowers with tubes more than 8 cm (3 $\frac{1}{2}$ in) long.

The author indicates that this species is close to *S. guineensis*, *S. longiflora* and *S. bracteata* but differs from them in the profusion and the length of the flowers.

The type comes from Ujiji and the valley of Sigi, Tanzania.

Clearly, the conclusion arising from the author's description shows that adequate field collected material is needed to properly introduce this species into cultivation.

A herbarium specimen of *Sansevieria braunii* deposited in the Nairobi (EA) Herbarium, Kenya. The unusually long tube of the flowers can clearly be seen

Sansevieria burdettii

This is a distinct and new sansevieria quite rare in cultivation. Underground rhizome 4 cm (1 ½ in) thick. This is a stemless plant with leaves 3-6 to a growth, besides some basal shorter leaves, elliptical in cross-section where there is no channel. Distichous, spreading and rigid, of a dark green color. Leaves are stiff and the texture is waxy and smooth. Leaves reaching 90 cm (3 ft) or more, 2.5 cm (1 in) wide and 3 cm (approx. 1 ¼ in) deep. Young leaves, if grown in strong light, will show a faint cross-banding,



otherwise the leaves have no markings whatsoever. The center, newer leaves are longer. Leaf apex withered and hardened. The channel is acute and can reach 2/3 of the leaf length. Leaves impressed with several longitudinal lines running all the way to the tip.

The inflorescence is a spike-like raceme shorter than the leaves, 16 - 20 cm (6 - 8 in) long, 4-6 flowers per cluster, tube 20-25mm (3/4-1 in), lobes 18-20 mm (11/16 -13/16 in).

This plant has been confused with *S. schweinfurthii* and some commercial nurseries are selling the latter as

S. burdettii. However the former has totally cylindric leaves and the growth habit, not distichous, is sinuous. Also, the stature of the plant is shorter. Center leaves are more uniform in height or may be shorter in length. The channel is rounded, not acute and often non-existent.

The plant comes from the Kapichira Falls in southern Malawi and was collected by A.F. M. Burdett of England, to whom this plant is dedicated.

This is a slow growing and quite a sculptural plant that needs strong light to grow well.

Sansevieria burmanica

This is a stemless sansevieria with a creeping underground rootstock to 2 cm ($\frac{3}{4}$ in) thick. Leaves 8-13 to a tuft. Smooth, 4.5-7.5 cm ($1\frac{1}{2}$ - $2\frac{1}{2}$ in) long, 1-3 cm ($\frac{1}{2}$ - $1\frac{1}{4}$ in) wide, to 4 mm ($\frac{1}{8}$ in) thick at the middle. Leaves are very straight, close together, flexible, linear or linear-lanceolate, with a slight wide angular channel down the face, obtusely keeled on the back, tapering to a soft subulate point to 9 cm ($3\frac{1}{2}$ in) long at the apex. Grass green in color, transversely marked with paler green, with several impressed longitudinal lines on the adaxial side of the leaves, somewhat glossy. Leaves have green edges withering with age.

Inflorescence a spike-like raceme to 75 cm ($2\frac{1}{2}$ in) long, flowers 2-5 in a cluster, tube 8 mm ($\frac{3}{8}$ in) long, lobes 8 mm ($\frac{3}{8}$ in).

The epithet means, of course, *of Burma* in Latin as this plant came from near Kyaukse, Myanmar.

This plant has been confused with *Sansevieria trifasciata* 'Slimmerette', which it is not.

The existence of this plant in cultivation is deemed by this author to be doubtful.

Sansevieria caespitosa

Following is a translation by the author of the entire original, and only, description of the subject plant:

Sansevieria caespitosa Dtr. sp. nov. – D.: Maltahöhe, Dtr. 3148, on the left side of the railroad from Seeheim to Kanus, Dtr¹.

Close to *S. thyrsiflora*, but it is only 10- 20 cm. high, almost black-green, with inconspicuous cross-banding. Besides, the rosettes stand dense as grass, often 20'-30 to a square meter, while *S. thyrsiflora* in the same area only 2-3 grow. Flowers and fruits not yet seen.

The above is the entire description and all we have on this plant.

Comments: According to Dr. Joachim Thiede the botanist Kurt Dinter (1868-1945) explored by traveling mostly by train.

The herbarium specimen, deposited in Berlin, was lost during the Second World War. 20-30 plants per square meter is approximately 2.7 plants (less than 3) per square foot. The plant is 20 cm, that is, about 8 in high. Both these facts and the fact that Dinter compares it with *S. thyrsiflora*, a relatively wide leaf plant added to the black-green color, gives us a visual image of what the site looked like.

It does not seem to the author of this book that density of growths, size and color of leaves of a sansevieria can possibly prove to be a new species. Some field work needs to be done and if that proves this plant qualifies as a new species, then *Sansevieria caespitosa* can be a viable name. In the meantime, it is this author's opinion, that this name should be dropped.

The meaning of the epithet is *grass-like* in Latin.

Because of the meaning of the epithet, the name of this plant has been erroneously applied to plants that look like grass with a little stretch of the imagination. The plants so identified that the author has seen are either *S. parva*, narrower forms of *S. parva*, or sometimes even hybrids.

Sansevieria canaliculata

This is a distinct sansevieria with a creeping underground rhizome, not thick, about 1.5 cm (5/8 in) thick. The leaves vary considerably in size and there exists one clone than grows mostly “dwarf”. However the largest size of the latter is larger than the smallest size of the former, making it quite difficult to separate one from the other. It appears then, that the “dwarf form” is only a juvenile form of the species.

The leaves grow solitary, up to 60 cm (2 ft), and many times quite close to each other. They are not more than 2 cm (less than 1 in) thick, rigid, apple-green in color and they seem to always present a slight or a deep curve. The texture is smooth and waxy. This plant presents no trace of cross-banding at any stage of growth. The leaves are circular in cross-section but



have several deeply impressed longitudinal lines, or grooves, that run all the way to the tip, which is stout, dried and reddish at the base.

The plant presents a shallow channel on the adaxial side of the leaf, which is not always conspicuous.

Inflorescence a spike-like raceme, quite short, to 8 cm (3 1/2 in), rising directly from the rhizome, flowers 3 in a cluster, tube 25 mm (1 in), lobes 17 mm (5/8 in).

The identity of this species is easy to determine.

The epithet comes from

the various impressed lines that this plant presents. However it also has a very shallow round channel with round edges on the adaxial side of the leaves which may have given it its name.

The plant comes from Somalia and there is a different clone in Madagascar, which is the afore-mentioned "dwarf". The actual difference appears to be in the number of leaves, greater on the latter. However, it is well known that juvenile forms produce a larger number of leaves. This plant was sold for years in southern California as a "dwarf form". The fact is that the plants collected in Madagascar and in existence in the University of Heidelberg Madagascar Room, from where this plant is supposed to have come, are large in size. The author was able to ascertain this on two consecutive visits to that University. On the last visit, the author brought back to California two cuttings from the University and found that, after planting, the plants that offset were indeed full size.

This plant is easy to grow provided it is given bright light conditions, otherwise the leaves will change from rigid to flexible and they will flop.

The epithet means, as expected, *with channel*.



Both clones of *Sansevieria canaliculata* growing in the author's garden in southern Florida. The "dwarf" form is on the front left.

Sansevieria caulescens

A plant with an underground rhizome and with an erect stem reaching 60 cm (2 ft), ca. 2.5 cm (1 in) thick, covered by the leaf bases. Leaves 45 - 90 cm (1 ½ - 3 ft) long, about 2.5 cm (1 in) wide, 12 - 18 mm (½ - ¾ in) thick at the base. spread out almost horizontally, slightly recurved, and pointing in all directions. There is an acute channel of variable length, sometimes reaching the tip of the leaves. Where the channel stops the leaves become terete and taper gradually into a very spiny tip. The texture is slightly rough and waxy. The color is dark grayish-green, with light gray somewhat indefinite markings. The edges of the channel are acute with a reddish border. The leaves sometimes curve at will and even twist. Side and back of the leaves are marked with a few longitudinal impressed lines. The color of the leaves and the markings are quite similar to those of *Sansevieria downsii*.



Inflorescence a spike-like raceme more than 60 cm (2ft) in height.

Flowers 6-12 to a cluster, tube 14 mm (5/8 in) long, lobes 19 mm. (3/4 in.).

The difference between the plant pictured and the plant described by N. E. Brown is on the tip of the leaves, which are very spiny but which Brown describes as not hard, though "very acute". This could be a result of cultivation. All the other characters are reasonably close.

The plant comes from East Africa without a precise locality

Sansevieria 'Chimanimani Mountains'

A creeping rhizome to more than 24 mm (1 in) in thickness, burnt-orange below ground, gray above ground. Leaves 2-6 or more to a growth, slightly curved backwards, flat, not thick, rigid but flexible, erect, to 60 cm (24 in) or more.

Apple-green, dull, very smooth, with subtle markings. Some specimens have a darker color and conspicuous cross-banding. Edges reddish. Lanceolate leaves that taper only slightly to the base where they embrace the younger leaves.

S. 'Chimanimani Mts' in the garden of Dave Richards in Zimbabwe. Photo: D. Richards.



raceme.

This sansevieria comes from the Chimanimani Mountains in eastern Zimbabwe.

Sansevieria 'Chipinge'

This sansevieria is quite similar to *Sansevieria* 'Chimanimani' and it could be the same species once all the characters for both plants are properly studied and identified. The difference noticed by other people, and also the author, is that this plant, under equal conditions of temperature and bright light, shows some cross-banding. Besides, the color is darker than that of the former and the leaves are slightly stiffer as well. It also appears to the author to be somewhat stiffer,

The inflorescence is in the form of a spike-like raceme, densely covered with flowers.

The plant was found by Anthon Ellert in the Buzi Wood Farm located in central eastern Zimbabwe, and subsequently distributed to collectors by Dave Richards.

Now the area has been plowed to grow coffee plants and this sansevieria is not to be found there anymore.



Sansevieria 'Chipinge, a plant quite close to *S.* 'Chimanimani'. Plant and photo by D. Richards.

Sansevieria concinna

A distinct plant, stemless, with an underground rhizome. It has been around for a long time, but does not seem to be so common in cultivation. It belongs to the “spoon shaped” group of flat leaves this is a stemless plant with a creeping rhizome less than 1.5 cm thick ($\frac{1}{2}$ in). Leaves 2-5 to a growth, 15-20 cm (6-10 in) long, 12-30 mm ($\frac{1}{2}$ - $\frac{2}{4}$ in) wide with a green subulate point 6mm. ($\frac{1}{4}$ in) long. Leaves are narrowly lanceolate, erect and somewhat folded inwards, narrowing to a channeled petiole towards the base, medium-green and faintly marked with lighter cross-banding. Edges are green and sometimes withered. Texture smooth and waxy.

The inflorescence is about 30 cm (12 in), 2 flowers per cluster, tube 44 mm (1 $\frac{3}{4}$ in), lobes 21 mm (ca. $\frac{7}{8}$ in).

This plant can be grown well in medium-light conditions. The epithet is the feminine form of *concinus*, “pretty” in Latin.

It came from the Portuguese East Africa, today Mozambique.

This plant lends itself beautifully to be grown in a hanging basket.



Sansevieria aff. *concinna* 'Lav. 5949'

A stemless plant with a creeping rhizome, gray when exposed to light, 6 mm (1/4 in) thick. Leaves 2-4 to a growth, erect, 22 cm (9 in) long, 5 cm (2 in) wide at 1/2 to 2/3 the length of the leaf, tapering upwards to a green or withered soft point and downwards into a narrow deeply channeled petiole 1.3 mm (1/8 in) wide. Edges of the leaves and the channel green or withered. Leaves are flexible, dark green with lighter green cross-banding.

Inflorescence a spike-like raceme, to 20 cm (8 in) long, flowers 1-2 to a cluster, tube 27 mm (1 1/16 in), lobes 25 mm (1 in). Fruit large, reddish globose 10 mm (3/8 in). This is as of yet an undescribed *sansevieria*. Collected by John J. Lavranos, North of Massinga, Mozambique.

This plant is the foremost example of a "spoon shaped *Sansevieria*". However, it varies at times, having shorter growths of wider leaves with a short petiole. If this growth is seen on its own, one would immediately think this is a different *sansevieria*. This fact and the big globose fruits strongly suggests its relationship with *Sansevieria subspicata*.



Sansevieria 'Lav. 5949, left, and *S.* 'Lav. 5933', compact and dwarf forms representatives of "spoon-shaped" *sansevierias*

Sansevieria aff.concinna 'Lav. 5933'

A stemless plant with a creeping rhizome, gray when exposed to light, 6 mm ($\frac{1}{4}$ in) thick. Leaves 2 - 4 to a growth, erect, 12.5 cm (5 in) long, to 2.5cm (1 in) wide at $\frac{1}{2}$ of the length of the leaf, tapering upwards to a green or withered soft point and downwards very fast into a narrow petiole with the leaf edges curving to form a round deep channel, 2 mm ($\frac{1}{16}$ in) wide. Edges of the leaves and the channel green or withered. Leaves flexible, dark green with lighter green cross-banding.

The leaves vary in shape with sometimes a much shorter petiole. The plant is shown on the right side of the figure on the preceding page.

Inflorescence a spike like raceme. Collected 20 Km W. of Vilanculos, Mozambique. Photo on previous page shows this plant on the right.

Sansevieria conspicua

A name that has produced much confusion due to improper identification and its subsequent acceptance in horticulture.

A stemless plant with a creeping rhizome to 2 cm ($\frac{3}{4}$ in) thick. Leaves are 3-5 to a growth, ascending and spreading, smooth 22-75 cm ($\frac{3}{4}$ -2 $\frac{1}{2}$ ft) long, 7.5 cm (3 in) wide and quite thin, 2mm (approx. $\frac{1}{16}$ in) thick at the middle, narrowing down to the bottom where the leaves embrace each other. The leaves have reddish borders, sometimes wavy. The leaves end in a hardened, not spiny, tip. The color of the leaves is dull green



and they are marked with numerous interrupted longitudinal lines of darker green color from base to tip, more on the front than on the back of the leaves. Cross-banding appears only faintly in young leaves and is totally non-existent in older leaves.

The inflorescence is a spike-like raceme with a flower stem tall, 50 cm (20 in), 1-3 flowers to a cluster, tube 38 mm (1 ½ in) long, lobes 32 mm (1 ¼ in).

The identity of this plant, as mentioned before, has been confused by erroneous tagging as *Sansevieria conspicua* of totally different plants, in particular plants with quite conspicuous blotching or cross-banding, an alleged character that is totally absent in N.E. Brown description of the species.

This is an attractive plant that I have seen quite dehydrated and paper-thin in the Arabuko-Sokoke Park in southeast Kenya.

The type comes from Mazeras, Kenya.

The meaning of the epithet in Latin is *conspicuous* and it could refer to the bright green appearance of the plant when all other vegetation has withered towards the end of the dry season.



In semi-shade under trees, in the Arabuko-Sokoke Park, Kenya, *Sansevieria conspicua*, their leaves curled-up, appear paper-thin near the end of the dry season.

Sansevieria cylindrica var. *cylindrica*

This variety was the original plant described with the variety *patula* appearing later. Underground rhizome, creeping, of grayish color, 3 cm (1 ¼ in) thick. Leaves, 2-3 that are quite erect, stiff, distichous to 1.50 m (5 ft) long, of elliptical, not circular, cross-section, to about 3 cm (more than 1 in) thick. There is a short leaf at the outer part of the leaf bases, sheath like, to more than 12 cm (5 in) long. The leaves taper slowly to a hard tip and are dark green cross-banded by lighter green. This cross-bandings is similar to that of *S. trifasciata*. The channel on this species is relegated to the very bottom of the leaf, leaving a space for the newer leaf to grow, so that the adaxial side of the leaves have virtually no channel.

The inflorescence is a somewhat tall spike-like raceme, to 90 cm (3ft) tall. Flowers 5-6 to a cluster, tube 25 mm (1 in), lobes 19 mm (3/4 in).

This plant is becoming more common in cultivation. As all the sansevierias having round leaves needs brighter light to be properly grown.

If not grown in



bright light, the leaves will tend to flop.

The epithet of this sansevieria refers, somewhat loosely, to the shape of the leaves.

This sansevieria comes from Angola.

Sansevieria cylindrica var. *patula*

Even beginner collectors have a clear idea of the identity of this plant. Underground rhizome, creeping, grayish color, 2.5 cm (1 in) thick. Leaves, 4-5 that are quite erect, stiff but flexible, distichous to 1.50 m (5 ft) long, of elliptical, not circular, cross-section, to about 2.5 cm (1 in) thick. There is a short leaf at the bottom, sheath like, to more than 12 cm (5 in) long. The leaves taper slowly to a hard tip and are dark green, cross-banded by lighter green. This cross-banding is reminiscent of the leaves of *S. trifasciata*. As with the previous variety the channel on the leaves of this species is relegated to the very bottom of the leaf, leaving a space for the newer leaf to grow, so that the leaves virtually have no channel.

The inflorescence is a somewhat tall spike-like raceme, to 90 cm (3ft) long. Flowers 5-6 to a cluster. The only difference on the flowering with *S. cylindrica* var. *cylindrica* appears to be the length of the flower tube, shorter for this variety.

The epithet of this sansevieria refers, somewhat loosely, to the shape of the leaves and the variety means *spreading*.

This plant is becoming more common in cultivation and as all sansevierias having round leaves needs brighter light to be properly grown. If not grown in bright light, the leaves that spread out will spread out even more so. I have seen plants in pots, whose leaves have flopped to that degree that their tips extended below the bottom of the pot so that they could only be grown in a pot placed on a pedestal. The dark color, many leaves, and lack of cross-banding makes a plant so grown appear to be a different, and quite an unbecoming, plant.

This sansevieria also comes from Angola.



An example of *Sansevieria cylindrica* var. *patula* grown in less than optimal light conditions. Note the excessive spreading of the leaves.. Though always spreading this variety will show not as much curving of the leaves when grown under brighter light conditions. On the other hand, it can show a much more drooping habit and no cross-banding, if grown under even lower light conditions.

Sansevieria dawei

A stemless plant with a creeping rhizome. Leaves 2-5 to a growth, ascending or sub-erect, 60 cm to 1.50 m (2-5 ft) long, 3.5-11 cm (2 ½ - 4 ½ in) wide, elongate-lanceolate, tapering from above the middle to an acuminate tip and downwards into a round channeled petiole. Smooth on the adaxial side and slightly rough on the abaxial side of the leaves, dull dark green and somewhat glaucous on both sides, cross-banded with pale green on both sides when young; edges reddish.

Inflorescence a spike-like raceme to 75 cm (2 ½ ft), flowers 3-4 to a cluster with tube 25 mm (1 in), lobes 22 mm (7/8 in).

The type comes from Busiro, Uganda.

The epithet is dedicated to M.T. Dawe who collected the plant.



Sansevieria dawei in cultivation.

Sansevieria deserti

A stemless plant with an underground creeping rhizome. Leaves 7-8 distichously arranged, erect and quite rigid, to 1 m (40 in) in length, 3.5 cm (1 ½ in) thick at the base. The leaves have a deep, acute channel, almost as wide as the leaf, that goes all the way to the tip. The edges of the channel are acute and have a reddish color. The tip of the leaves is hard and horny and its base has a reddish color. The leaves have a dark olive-green color, no cross-banding and are marked with several longitudinal impressed lines that

become more impressed when the plant starts to dry due to lack of water. New offsets have a characteristic pinkish tinge at the base of the leaves.

The inflorescence is a spike-like raceme 60 cm (2 ft) long, flowers 4 - 6 to a cluster, tube 8 mm (5 /16 in), lobes 13 mm (½ in)

The epithet of this sansevieria comes from *desertus* in Latin, *deserti* meaning *of the desert*.

This is a very sculptural plant not difficult to grow if provided with the necessary strong light.

The type of this sansevieria has its origin in Bechuanaland, now Botswana.



Sansevieria deserti growing in habitat at Victoria Falls in Zimbabwe with the author.

Sansevieria dooneri

This plant is close to *S. parva*. However, it can be distinguished by the wider, strap like rather than folded, leaves, 2 to 3 cm (approx. 1 in) wide, to 60 cm (24 in) long, and its markings. Also the stem is mostly non-existent and when present it does not reach more than 5 cm (2 in).

The leaves are dark green sparsely marked by areas that appear to be “dusted” on with a lighter green color reminiscent of *S. senegambica*.

The surface is waxy and shiny.

Inflorescence a spike-like raceme to 38 cm (1 1/4 in) long, flowers 2-3 to a cluster, tube 12 mm (ca. 1/2 in), lobes 13 mm (1/2 in).

The plant comes from the Kedong River in Kenya.

The name is dedicated to H. B. Dooner, the collector.



Beautiful specimens of *S. dooneri* at Vivaio Brookside Nursery, Italy.

Sansevieria downsii

A sansevieria with a creeping stolon, brownish and approx. 2 cm (less than 1 in) thick. Stemless, 6 to 14 leaves to a growth, spreading wide and growing in all directions. This is a big plant with leaves reaching to 45 cm (18 in) or more and 3 cm (1 ¼ in) wide. The interior leaves are longer. There is a more or less deep acute or sometimes concave channel and the edges are acute and reddish. This channel goes almost to the tip which is quite spiny. The edges of the channel turn round as they approach the tip and lose their reddish color. Sometimes, the last, or newest, leaf of a growth is entirely round with no channel. The color is olive-green and the surface is smooth and shiny or slightly rough with quite subtle cross-banding. There are longitudinal continuous and interrupted impressed lines running almost to the tip of the leaves. Also, if one holds a plant in the hand, one will notice that it is quite heavy, indicating that it holds a lot of water.

Inflorescence a spike-like raceme 160 cm (63 in), 3-5 flowers to a cluster, tube 10 mm (3/8 in), lobes 12 mm (ca. ½ in).

This plant has been in cultivation for years in the USA, having been known by the name of *Sansevieria* 'Malawi/Downs'. Indeed the epithet



refers to the English collector Philip Downs. The plant was collected by him at the Njakwa Bridge over the Rukuru River in northern Malawi.

This plant requires bright light to grow well. Not difficult to grow.

Sansevieria ehrenbergii

This plant has a stout underground rhizome with a relatively short stem from 0-22 cm (0-8 in) high covered by the leaf bases. Leaves 5-9, crowded, rigid, distichous, erect or somewhat spreading, to 1.80m (6 ft), 2.5 (1 in) wide and with a depth slightly thicker. Leaves are laterally compressed and with flattened sides, very rounded on the back, tapering upwards somewhat abruptly into a hard-spiny point with a triangular channel as wide as the leaf running its full length. Marked with several shallow impressed longitu-



Juvenile *Sansevieria ehrenbergii* in 15 cm (5 in) pot, propagation of a plant collected in Somalia. This is a very thick and sturdy plant. Channel narrower than the width of the leaf.

dinal lines on the side and back of the leaves, blackish green in color. Without any cross-banding or mottling, slightly rough. Margins of the channel acute reddish, the channel spreading wider than the leaf at the bottom. Inflorescence, a panicle up to 1.80 (6 ft) high. Flowers 4-7 to a cluster, flowers small with tubes 6 mm ($\frac{1}{4}$ in) long, lobes 7 mm (ca. $\frac{5}{16}$).

This sansevieria comes from the northern part of Somalia. It also grows in Eritrea and Arabia. The identity of this plant is not quite clear to the author. The juvenile plant shown on the picture is deemed to be the most plausible one and is the one that differs the most from *Sansevieria robusta* by the thickness of the leaf, the narrowness of the channel, the spreading out of the leaves and the bluish color. However, N.E. Brown states that the edges of the channel are as wide as the leaf. This does not appear to be the case with plants from NE Africa, including Somalia and Arabia, all of which however, have either a short stem or no stem. To further complicate things, the line of division of this group with that of *S. robusta* is not clear.

Sansevieria eilensis

Unquestionably, this is one of the choicest, if not the choicest, sansevieria. It has an underground, creeping rhizome, 2.5 cm (1 in) thick, of gray color and no stem. Two to three round leaves on mature specimens. Leaves do not seem to grow larger than 18 cm (7 in) and 2.5 cm (1 in) thick. The leaves have a dull, light bluish-green color regularly cross-banded with grayish-white bands. The mature leaves are quite uniformly cylindrical along their length and taper suddenly towards the hard and dried tip. The surface is smooth and marked with several longitudinal thin lines. An unusual character of this sansevieria is that the last, and newest, leaf of a growth has a slight taper towards the bottom. Younger leaves have an acute channel with acute edges bordered with a reddish color. As this channel disappears in more mature leaves, it is gradually relegated to the tip and the bottom of the leaves. Very young leaves are, of course, flat.

The inflorescence is a spike-like raceme 34 cm (ca. 13 in) long, 2-4 flowers per cluster, tube 8 mm ($\frac{5}{16}$ in), lobes 14 mm (ca. $\frac{1}{2}$ in).

This sansevieria is, perhaps, the one most difficult to grow.

The plant comes from Eyl, Somalia, this fact accounting for its epithet. It is a very rare plant and it appears to be an endangered species as well; undoubtedly a choice plant.



Sansevieria eilensis, one of the rarest and choicest of all sansevierias.

Sansevieria elliptica

A plant with an underground rhizome 2 cm ($\frac{3}{4}$ in) thick. Leaves 1-2 to a growth, elliptic in shape, to 30 cm (2 in) long, to 15 cm (6 in) wide, erect or somewhat spreading, curved adaxially, stiff and coriaceous as sole leather, equally rough on both the adaxial and abaxial sides. Color of the leaves is dark green, dull, conspicuously blotched with lighter grayish-green. Edges reddish: withered tip sometimes non-existent.

Inflorescence a spike-like raceme 20 - 35 cm (5 - 14 in) long. Flower 3-5 to a cluster, lobes 15- 20 mm ($\frac{5}{8}$ - $\frac{13}{16}$ in) long.

The epithet mean *elliptica* in reference to the shape of the leaves.

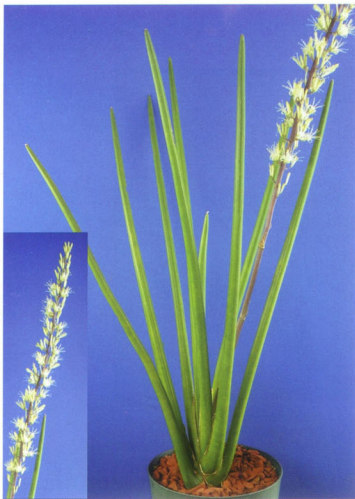
This plant has been around in cultivation for many years under the name HBG No. 22830, an accession number for a plant collected by Lavranos (Lav. No. 6795) north of Burao, Somalia.



Sansevieria elliptica, compact size and relatively wide leaves.

Sansevieria erythraeae

A plant with a short thick rhizome to 13 mm (1 in) or more, deep vermilion in color. Leaves 6-8 to a growth, erect, cylindric in cross-section to 1.5 cm (5/8 in) thick, somewhat distichously arranged as the crowding of the leaves at the base does not let them grow quite on a plane. Leaves dark-green, waxy, smooth with no cross-banding whatsoever, except faint markings on very young leaves. The leaves taper upwards gradually to a hard withered, not spiny, point. A round shallow channel, sometimes non-existent, runs a few centimeters up the adaxial side of the leaf, with the edges reddish. The leaves show several longitudinal, somewhat deeply impressed lines that form ridges around the perimeter.



The inflorescence is a spike-like raceme with 3-5 flowers to a follicle, tube 5-7 mm ($\frac{1}{4}$ in) long, lobes 14-15 mm (approx. 1-1/8 in).

This comes from Eritrea and reportedly from Ethiopia as well.

NOTE: The identity of this plant was determined by D. Teketay (1995) *Sansevieria Journal*, Vol.4:2, p. 50. However, it is not entirely without question as no field collected material is available and the plant we know in cultivation as *S. schweinfurthii* was rescued from the plantings at Koko Crater, Hawaii and came originally from the USDA (#19471), a collection started for

fiber research. This is the only clone in existence in the US today.

Sansevieria fasciata

Stemless plant with a thick rhizome and crowded leaf-tufts. Leaves 3-5 to a growth with the basal part straight and the upper part recurved-spreading or sometimes drooping. Flexible, smooth, 45-80 cm ($1\frac{1}{2}$ - $2\frac{3}{4}$ ft) long, 3.5-11.5 cm ($1\frac{3}{8}$ - $4\frac{1}{2}$ in) wide, 5 mm ($\frac{3}{16}$ in) thick at the middle, lanceolate, acute, with a green point to 6 mm ($\frac{1}{4}$ in) long, withered at the tip,

tapering from the middle downward into a round channeled petiole.

Pale green above, distinctly marked on both sides with irregular narrow zigzag transverse dark green bands: on the upper surface the pale green areas are more or less interrupted or broken up into irregular spots and longitudinally traversed by dark green lines; beneath, the color is brighter, with fewer and more distant dark green bands not so much broken up into spots nor traversed by dark green lines. Margins very narrowly whitish or reddish with age.

Inflorescence a spike-like raceme with a stalk 60 cm (24 in), 3-4 flowers per cluster, tube 17 mm (ca. 3/4 in), lobes 20 mm (ca. 7/8 in).

The type of this plant came from the Congo Free State.

The epithet means *band-shaped* in Latin.



Sansevieria fischeri

This is a very distinct plant with an underground rhizome. The plant was first described by N. E. Brown as *Sansevieria singularis* and the name was later changed to comply with the priority requisites of the International Code of Botanical Nomenclature. the former name describes one of the characters of this plant in the mature stage: leaves solitary

In cultivation, the fact is that this is hardly ever seen. It takes a long time, perhaps close to a decade to see this happen. In the juvenile stage the leaves are flat and thick and laid in a rosette, having very distinct markings of lighter green on a bright green base, smooth and somewhat glossy. The edges are reddish. As the plant matures the leaves slowly turn round and the adaxial side starts closing to leave a narrow channel on the adaxial side of the leaf. This channel is round and has acute reddish edges.

The plant matures as an upright leaf, this channel turns smaller and shallow, and the edges turn rounder. The acute edges are relegated to the tip

of the leaf, still reddish in color and measuring scarcely a couple of centimeter (less than 1 in.). The leaves, now round, turn dull, bumpy rough, rigid, their color changing to a petroleum green.

Though H. Pfennig gives this plant as an example of a round-leaved plant growing in the shade, I found it often growing in the sun in Kenya. Further, my experience in growing this plant is that it grows better in very strong light. I have never seen this plant taller than 1.80 m (6 feet) either in field or in cultivation, not quite the 2.40 m. (8 feet) indicated on the original description. The round cross-section of this plant at maturity measures about 4 cm (more than 1 5/8 in) at the base.

The inflorescence is a capitate raceme growing at ground level and small, possibly not exceeding 10 cm (about 4 in) in diameter. Unlike *Sansevieria*



Inflorescence of *S. fischeri* - Juvenile rosette can be seen front left. The rest are mature plants.

stuckyi, the appearance of an inflorescence on this sansevieria is a rare event.

Sansevieria forskaoliana

A stemless plant with a creeping rhizome. Leaves 1-4, in cultivation, often solitary, always upright, lanceolate, to 75 cm (30in) long, 10cm (4 in) wide, not thick, stiff as sole-leather. Leaves narrow upwards to a stiff subulate or dried tip. Leaves narrow downward, sometimes forming a petiole. Quite dull, dark bluish-green faintly marked with lighter cross-banding. Edges of the leaf reddish with prominent fiber borders. Texture almost smooth on the adaxial side and rough as sand-paper on the abaxial side.

The leaves need strong light to show the cross-banding, which gets obliterated with age. There has obviously been a confusion of this plant with *S. abyssinica*.

The subject plant is quite different from the latter and its rendering of a synonym is a matter that should be reviewed. In the meantime, there are two different plants in existence.

The inflorescence is in the form of a spike-like raceme.

The epithet commemorates the Swedish botanist and explorer Pehr Forsskål.



Sansevieria forskaoliana, smaller or larger leaves appear to have the same large inflorescence.

Sansevieria francisii

This plant, previously known as *Sansevieria* sp. 'FKH 432', was collected in Garsen, Coast Province, Kenya by the late Francis K. Horwood, an English collector, well known in the succulent field.

The leaves grow in whorls of five, stacked on top of each other, are round, stiff, slightly rough, with a flattened shallow channel, quite distinct for this species; where not channeled, round in cross-section, of a dark green color and distinctly cross-banded with grayish green. The plant can reach considerable height, 45 cm (18 in) or more. In doing so, it does not stay erect but flops and it has to be staked to keep it upright. Stolons grow from the base or from various heights of the plant covered with triangular sheaths that dry to a tan color. If well grown in bright light, leaves are not longer than 12 cm (about 5 in) and 8 mm (5/16 in) thick.

The inflorescence is in the form of a spike-like raceme. Flower stalk 12- 25 cm (5-10 in) long, 1-2 lowers in a cluster, tube 16-19 mm (ca. 5/8 - 3/4 in) long, lobes 8-10 mm (5/16- 7/16 in).



Sansevieria francisii, a plant growing in whorls of 5 leaves stacked on top of each other. A distinct plant.

This sansevieria is easy to grow as long as enough light is provided. If grown in other than bright light conditions, the leaves will become quite elongated and the color will turn darker.

The epithet, as expected, commemorates the name of the collector.

Sansevieria frequens

A stemless plant with a sturdy, creeping rhizome, 5 cm (2 in) in diameter. Leaves 4-8 or more but mostly 6, erect, to 90 cm (35 in) high, stiff as sole leather, smooth. Dull grass-green in color mostly without any cross-banding, particularly in the younger stages and sometimes with a bloom. The margins are reddish in color, their borders detaching at times into fibers. Leaf apex obtuse formed by the withered edges. Leaves slightly narrow towards the bottom enclosing the younger leaves. Some leaves present interrupted longitudinal lines of dark green color but most specimens lack these.

The flower stalk is very thick 2.5 cm (1 in) and tall, 90 cm (35 in) high with few withered bracts at the bottom. Flowers in clusters of 4-6, tube 18-20 mm (ca. $\frac{3}{4}$ in) long, lobes 26-28 mm (ca. 1 in).

The epithet was selected because it means *frequent* in Latin, this accounting for the widespread distribution of this plant in Kenya and part of Uganda. This plant is not common in cultivation, it is easy to grow and grows very tall in lower light conditions.



Sansevieria frequens in the highlands of Kenya. Above, freely growing in the garden of Tony and Rose Dyer, Ngare-Ndare, Kenya highlands.

Sansevieria gracilis

This plant has a stem that can reach to 7.5 cm (3 in) and is hidden by the leaf-sheaths. It propagates by stolons, 15-90 cm ($\frac{1}{2}$ - 3 ft) long and 6 mm ($\frac{1}{4}$ in.) thick, which are also covered with withered leaf sheaths to 2.5 cm (1 in) long. The upper sheaths turn gradually into the bottom leaves of the new growth. Leaves are 8-12 to a growth, growing in all directions, closely spaced, 20-75 cm ($\frac{3}{4}$ - 2 $\frac{1}{2}$ ft) long, 1 cm ($\frac{3}{8}$ in) thick, straight or slightly twisted at times, flexible but firm, not rigid. The texture is nearly smooth. The outer leaves of each growth are much shorter than the inner ones and they have a round channel up 13.5 cm (5 in) long. The edges of the channel are acute and withered. The tip is mostly withered and sometimes spiny. Some leaves are marked with very few impressed longitudinal lines of darker green on the older leaves. The color is grass-green marked with inconspicuous darker-green markings that soon disappear.

The inflorescence is a spike-like raceme to 30 cm (1 ft) long. Flowers 2 to a cluster, the flower tube is 19 -25 mm ($\frac{3}{4}$ - 1 in) long, lobes



11-13 mm (6/16- 1/2 in).

The epithet means *slender* in Latin. The type comes from Mazeras in Kenya.

This plant is really elegant and, more so, graceful. Needs bright light. This is quite a distinct *sansevieria* used as reference for descriptions of other taxa.

NOTES:

a) Though the original description indicates that the leaves of this species are smooth, some clones of *Sansevieria gracilis* do not have a smooth but rather a distinct rough surface.

b) Pfennig identified a different plant than the one typically associated with this taxon. He provided me with the plant material and indicated this was the "real" *Sansevieria gracilis*. As it turns out, the leaves of this plant are, at least, twice as large and twice as thick as those of the *S. gracilis* widely known in cultivation. This does not appear to be a great difference, however in the presence of the plant, the difference is remarkable.

Sansevieria gracillima

This attractive *sansevieria* was collected by John J. Lavranos in Bur Heybe, Somalia and is being presented here for the first time.

Close to *Sansevieria gracilis* but with differences like the darker color, number and size of the flowers and the length of the leaves.

Compared to the latter, this plant has shorter leaves. Even when grown in bright light, the leaves are of a darker green and have a more conspicuous cross-banding. The length of the channel on the leaf is as variable and the texture is smooth as well.

The inflorescence is in the form of a spike-like raceme with flowers with a strong purple tinge, not white as the type, and a much shorter flower.

The inflorescence is a spike-like raceme, 18 cm (7 1/2 in) long, 2- 3 (mostly 3) flowers per cluster, tube 7 - 8 mm (ca. 5/16 in) long, lobes 14 - 15 mm (ca. 5/8 in).

The epithet means *most slender* in Latin.



Sansevieria gracilis var. *somalensis*, a new botanical variety with shorter leaves and smaller flowers with a purple tinge.

Sansevieria grandicuspis

Stemless with a stout creeping rootstock. Leaves 5-15 to a growth, erect, sub-erect or ascending – spreading, nearly straight smooth, 17.5-50 cm (7-20 in) long, 12-37 mm ($\frac{1}{2}$ - 1 $\frac{1}{2}$ in) wide, 3 mm. ($\frac{1}{8}$ in) thick at the middle, coriaceous, stiff, linear-lanceolate, with a very open angular or concave channel down the face or strap-shaped and flat or nearly so, shortly tapered or somewhat abruptly narrowed into a short subulate, somewhat flexible (not at all hardened) green point 17-50 mm ($\frac{5}{8}$ – 2 in) long, the wider and flatter leaves narrowed at the base but scarcely petiolate 5 - 14 cm (2 - 6 in) long, so that the distinction between blade and petiole is lost, somewhat regularly marked with transverse bars of dark and lighter green on both sides of the apex, with 5 - 7 continuous or interrupted darker green impressed lines or slight furrows on the back. Margins green, sometimes with age or injury becoming very narrowly whitish. Flowers not seen. Origin unknown.

The above description, except for the conversion of dimensions of

metric system is taken verbatim from N.E Brown description of a cultivated plant without any known origin.

S. grandicuspis with leaves under twelve, sub-erect, lanceolate-ensiform;, cross-banded, ending in a large subulate point, below with 4-6 longitudinal strong lines often interrupted.¹

Both descriptions, the second being the original one by Haworth, describe, according to the author of this book, almost unequivocally *Sansevieria zeylanica*. As a matter of fact, the plant known in cultivation for years as *S. grandicuspis*, and offered as such by some rare plant dealers fit the above description. Since *S. zeylanica* was described at an earliest date, the above name should be disregarded as a synonym.

The epithet means *long cusp* in Latin.

NOTE: 1. Haw. Synop. Pl. Succ. 67. Translation of *Sansevieria grandicuspis* from the Latin by the author.

Sansevieria grandis

A stemless sansevieria with a stout creeping rhizome, quite long, to 60 cm (2 ft) or more, 2.5 - 4 cm (1 - 1 5/8) thick. Leaves 4-5 to a growth, ascending, or ascending-spreading, sometimes partially flopping, almost smooth, 30-60 cm long 9 - 15 cm (3 ½ -6 in) wide at the middle, coriaceous, broadly lanceolate, with a soft withered point, considerably narrowing to a wide petiole at the base. The color is glaucous, somewhat bluish green, dull, marked with inconspicuous transverse bands of lighter green. The edges are green on adult leaves.

Inflorescence in the shape of a spike-like raceme, 60 cm (2 ft) tall. Flower tube 19mm (¾ in) long, lobes 19 mm (¾ in).

The meaning of the epithet is "big" in Latin.

The origin of this plant is unknown. Brown says the plant probably comes from South Africa. Introduced in Cuba by a Cuban society formed to exploit its fiber, which was claimed to be of a nice white, soft and strong.

This plant is the sansevieria that has given the Spanish name of “lengua de vaca” (cow’s tongue) to the entire genus in North, Central and the northern part of South America.

A few plants have been introduced as *Sansevieria grandis*. Most of these plants have reddish edges and conspicuous cross-banding. These plants do not respond to the authors description and therefore, the name should not be applied to them.



Specimen of *Sansevieria grandis* in 30cm (12 in.) pot at Vivaio Brookside Nursery in Italy. Except for the conspicuous cross-banding, this plant agrees with the original description.

Sansevieria hallii

This is a very distinct plant that has been around for about two decades. A stemless plant with thick and wide leaves and an underground rhizome 3 cm (more than 1 in) thick. The color of the leaves is gray-green with lighter cross-banding that is more pronounced in younger leaves. These leaves tend to spread horizontally. Very rigid: snapping one's finger on a leaf will make it sound almost like wood. Leaves reach more than 60 cm (2 ft) in height, but most of the plants grown in the sun will only attain two-thirds of that height. Leaves are 2.5 cm (1 in) thick at the bottom and 5 cm (2 in) wide at the center slightly tapering towards the bottom. Leaves have a deep, wide, round channel that goes all the way to the tip of the leaf, which is rounded. The edges of the channel are acute and reddish, rough to the touch and dull in color, marked with very dark longitudinal continuous impressed lines.

This plant is readily distinguished by the shape of the leaves which resemble a "tongue" in the younger stage, or a "baseball bat" in the mature stage. It has been known commercially by these names for years.

The inflorescence is a capitate raceme at the base of the mature leaves, with long flowers with a purplish tinge at their lower



parts; it is a sight to behold. Flowering does not appear to be an unusual occurrence.

The type comes from Birkenough Bridge in Zimbabwe. The epithet honors the English horticulturalist Harry Hall (1906-1986) who lived many years in South Africa.

This plant is easy to grow, needs bright light and will resist lower temperatures than the more tropical *sansevierias*, provided it is kept dry.

Sansevieria hallii 'Blue'

This is a clone of *Sansevieria hallii* that is somewhat different from



the type. It has an overall blue color and, as the latter, it presents faint cross-banding in juvenile leaves. The plant has also one other different character that may be only a way the species varies, that is, the leaves are narrower, not over 25 mm (1 in), longer and they do not widen at all towards the tip. The inflorescence is also identical. Other than the characters mentioned, it is no different from *S. hallii*.

The original plant was collected by Anthon Ellert in Zimbabwe at the crossing of the Lundi and Sabi rivers. This author has collected with Dave Richards a similar plant 5 km into the road to Bangala Dam, off Ngunde-Triangle

road in southern Zimbabwe. Yet other collections were made by Dave Richards himself. All of these collections match quite well the subject plant.

This sansevieria is as easy to grow as the type.

Sansevieria hallii 'Lundi'

This is also clone of *Sansevieria hallii* that is somewhat different from the type. The author distributed this plant quite a few years ago as *Sansevieria* 'Lundi Bat'. It has an overall blue-green color with a very bright cross-banding that reminds one of that of *Sansevieria fischeri* in the juvenile stage. This plant has also other characters that, as *S. hallii* 'Blue', may only be the way the species varies, which are that the leaves are much narrower,



even more so than the latter, longer, and that the leaves do not widen at all towards the tip. The inflorescence is the same as well. Other than the characters mentioned, it is no different than *S. hallii*. The author has given the cultivar name to this plant on account that it was collected near the Lundi River, south of Masvingo, Zimbabwe.

During the last few years, the author has received a number of new collected material, both from Zimbabwe and South Africa, that appears to correspond quite well to the expected variation of *S. hallii*, most of them distinct and somehow bridging the gaps between 'Pink Bat', 'Lundi Bat', 'Blue Bat' and *Sansevieria hallii*.

Until these plants mature, propagate and flower, no conclusions can possibly be drawn. The inflorescence though, appears to be the same. As expected then, more work is required to reasonably sort out this particular species and its varieties, which may turn out to be only the variation of the original species.

Sansevieria hallii 'Pink Bat'

This very unusual sansevieria has the growth habit of *S. hallii*, except that it seems to grow much larger. It has quite a rough surface with a texture that gleams by strong light. The color is reddish brown throughout and like *S. hallii*, shows traces of cross-banding at early stages of growth. The parts under ground and not exposed to light have an orange-pinkish color which suggested the cultivar name. When grown in bright light the texture of this sansevieria has an iridescence reminiscent of microscopic crystals.

As with the former, this plant tends to lean back when grown in the ground. A very desirable plant.

This plant was collected Venda, a region in the northernmost part of South Africa.

NOTE: I have presented the four "bats" that are in cultivation and in the hands of collectors. As mentioned above the author has received a few other "bats" from field collected material. As with some of the other species there is no clear boundary as to where one ends

an the other one begins. This presents yet another challenge to the taxonomist. However, the most distinctive one appears to be the subject *S. h.* 'Pink Bat'.



Sansevieria hallii 'Pink Bat', a sansevieria having a pinkish color that appears to be of all the "bats", the most different one from *S. hallii*.

Sansevieria hargeisana

A stemless plant with a creeping rhizome, 20 cm (8 in) high. Leaves 4-9 to a growth, cylindrical, rosulate, stiff, 8-20 cm (3 ¼ -8 in) long, entirely round in cross-section, except at the base, 10-14 mm (3/8-5/8 in) thick at the base, gradually tapering from the middle to a cuspidate, dried, short, sharp tip marked with a reddish band. A round channel runs on the adaxial side from 1/8 to 1/3 of the leaf length, and in the older, smaller leaves the full length. Leaf are very dark green in color, cross-banded with lighter green,

and have a rough texture. The leaves are marked with 5-7 well impressed, continuous, longitudinal lines to almost the tip. These turn into grooves when the leaf is not turgid. The channel have a very thin reddish margin with a prominent withered membrane.

Inflorescence a spike-like raceme 14-18cm (5 ½ - 7 in) tall. 2-4 flowers per cluster. Flower tube 8mm (3/8 in) long, lobes 9 mm (3/8 in).

This sansevieria, described by the author of this book, has its identity questioned. However, the fact is that as of now the plant has not proven identical to *Sansevieria phillipsiae*, the plant of which it is supposed to be a synonym, due mainly to its much more reduced overall dimensions.



Sansevieria hargeisana in flower, possibly related to *S. phillipsiae*, however it shows smaller dimensions than the latter.

Sansevieria 'Horwood'

A stemless plant with a creeping rhizome. Leaves 2-5 to a growth in mature specimens, to 75 cm (30 in) long, 7.5 cm (3 in) wide at the middle, quite rigid, lanceolate, erect or curving, sometimes twisting, narrowing upwards to a withered point, downward gradually to a round channel and embracing the newer leaves. Leaves are very thick along the center of the leaf, presenting almost a keel. Edges of the leaves reddish, smooth and somewhat shiny on the upper side and rough and quite dull underneath. Dark bright green, not grayish at all, conspicuously blotched, not cross-banded, with much lighter grayish-green. Both surfaces of the leaf have numerous continuous longitudinal lines going through the blotching as if it has been painted with a dry brush of the dark-green background color. This character appears to be typical for this species.

Inflorescence a spike-like raceme to 60 cm (2ft) tall, flowers 3-5 per cluster, tube 30 mm (1 1/8) long, lobes 25 mm (1 in).



This plant was previously known as *Sansevieria* sp. 'FKH 424', the initials belonging to Francis Kenneth Horwood, the English collector who brought it from Kenya, without precise locality.

This is a very bright colored and beautiful sansevieria not difficult to grow.

Sansevieria humbertiana

"With no stem, leaves diverging, not at all distichous, smooth, ca. 10 recurved, up to 33 cm (13 in) long and 1.3 cm ($\frac{1}{2}$ in) thick, cylindric and channeled above, regularly attenuate, apex subulate, white, apex widely triangular or nearly flattened, with acute margins, below the center reddish or whitish, with the back scarcely furrowed, dark green or marbled,

Inflorescence not quite 20 cm (8 in) long, greenish and spotted white, the lower third bare save with 2 bracts, linear, to 3 cm ($2\frac{1}{4}$ in) long,



Sansevieria humbertiana as identified by Horst Pfennig, quite close to *S. volkensii*.

with flowers in groups of 2, rarely 3, alabaster color, glossy, with buds spreading recurved, 2 cm ($\frac{3}{4}$ in) long, white, the apex greenish, bracts membranous, white, short, with a pedicel 2 cm ($\frac{3}{4}$ in) long, articulated at the top, perianth tube scarcely longer than the lobes, stamens as long as the perianth, anthers greenish-yellow, style length exceeding the stamens."

NOTE: The above is the translation from the Latin by the author, of the entire description and information we have from A. Guillaumin.

The plant comes from Kenya and may be identical to *Sansevieria volkensii*.

Sansevieria humiflora

A stemless plant with an underground rootstock to 5 cm (3 ¼ in) thick, reddish-brown, with 1-3 flat, but very thick, leaves to a tuft, growing in all directions, spreading, and of varying lengths, rigid. The leaves are rough in texture, in-curved 25-45 cm (10- 18 in) long, to 8 cm (3 ¼ in) wide and 10-15 mm (3/8-5/8 in) thick at the base. The color of the leaves is dark green, glossy, with several longitudinal grooves, sometimes indistinctly banded with lighter blotching. The margins of the leaf are reddish, with a withered blunt apex.

Inflorescence capitate, growing at ground level. The flower tube to 15 cm (6 in) long, lobe length not reported.

The epithet means *flower on the ground* in Latin.

This sansevieria comes from southeast Zimbabwe.



Sansevieria hyacinthoides

A distinct sansevieria with some taxonomic controversy. It has a creeping underground rhizome to 2.5 cm (1 in) thick. The leaves, 1-2 to a growth, are lanceolate, somewhat curved inward, to 75 cm (30 in) long, 12.5 cm (5 in) wide, narrowing from the middle downward to a short petiole partially wrapped around the new leaf. Leaves are quite stiffly coriaceous, somewhat rough in texture with a pale-green color, dull not glossy, marked by dark green zig-zag lines forming a quite distinct open net. The leaves



taper from the middle upwards into an acute tip, withered. The edges of the leaves are reddish with the withered borders detaching into fibers.

The plant known as *Sansevieria "macrophylla"*, an invalid name, is this species.

The inflorescence is in the form of a spike-like raceme 65 - 70 mm (2.5 - 2.7 in) tall. Flower tube 18 - 23 mm (3/4 - 7/8 in) long, lobes 23 mm (ca. 7/8 in).

The epithet, as expected, means *in the shape of a hyacinth*.

This sansevieria finds its habitat in South Africa.

S. hyacinthoides, field-collected by Ernst van Jaarsveld.

Sansevieria javanica

S. with a bushy stem, with petiolate, lanceolate, acuminate, membranous nervation, smooth, with a terminal composite raceme; with bracts subtending 1-2 flowers and shorter than the pedicels, with stamens somewhat equal to the style.

Grows in Seribu, Java island, flowers in March, April.

The above is a translation from the Latin by this author, of the description made by C.L. Blume for this plant¹. This is the entire information available.

There is a plant in cultivation under the name of *S. javanica* however, the plant looks like a small *S. zeylanica* and does not fit the description above. Until a plant is found growing in the type locality that responds to the description, no plant should be presented as being *S. javanica*.

NOTE: 1. Blume C.L. (1827) Enum. Pl. Jav. i 11



This is the plant known in cultivation as *Sansevieria javanica*, which does not respond at all to the description above. It looks like a small *S. zeylanica*.

Sansevieria kirkii var. *kirkii*

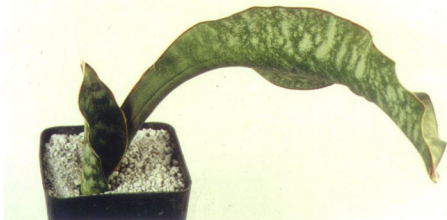
This is quite a distinct plant that was quite rare in the 80's. Stemless, with a stout creeping rootstock to more than 3 cm (1 ½ in) thick. Leaves 1-3 to a growth, very thick and rigid, growing vertically, then spreading horizontally, 75 cm to 1.80 m (2 ½ to 6 ft) long, 6-9 cm. (2 3/8- 3 ½ in) wide, 1.5 cm (5/8 in) thick at the mid-length of the leaf. Strap-shaped with wavy, reddish margins at all stages of growth, whose withered borders detach into fibers. The tips of the leaves are pointed or blunt. The leaves have a very prominent mid-rib or keel on the adaxial side, characteristic of this species. The leaves narrow down to a very thick petiole, 3 cm (1- ¼ in) wide x 3.5 cm. (1 ½ in) thick. The color is grass-green mottled with paler whitish-green, slightly shiny above and dull below. Some leaves marked with longitudinal dark green lines, which become furrows when the plant shrinks.

Inflorescence a capitate raceme, 30 cm (12 in) in diameter, very long purplish flowers, more than 12 cm (5 in) long, stalk 45-60 cm (1 ½-2 ft) long.

The epithet honors John Kirk, who sent this plant to Kew.

This plant finds its habitat in Tanzania.

I have seen this plant with leaves totally upright in the mature stage. I can only conclude that this is a result of it being planted deep in the pot.



Sansevieria kirkii var. *pulchra*

This variety of *Sansevieria kirkii* was described as having only one difference with the latter, namely a different blotching. The color of the leaves is dark green with much lighter ochre-green blotching which, when subject to strong light and a sparse watering regime becomes pinkish. However, it is marked with very few short, strong blackish lines near the base of the leaves and in cultivation this plant seems to have thinner, narrower leaves and not as strong as the type.



Sansevieria kirkii var. *pulchra*, differing from *S. kirkii* var. *kirkii* by its more conspicuous and attractive markings.

The variety means *beautiful* in Latin.

This plant comes from what N.E. Brown calls Zanzibar, namely, the east part of Tanzania.

Sansevieria kirkii var. *pulchra* 'Coppertone'

This is a sansevieria that is almost identical to *Sansevieria kirkii* var. *pulchra*, except for having the same color of the latter when this one is grown in dry conditions, though more intense. The fact that it does not require to be kept dry, keeping the color even in humid climates, makes this a choice sansevieria. Lack of light will turn the color grayish, in turn quite attractive. It also has many more prominent, thicker and blacker interrupted longitudinal lines.

The origin of this variety is unknown.



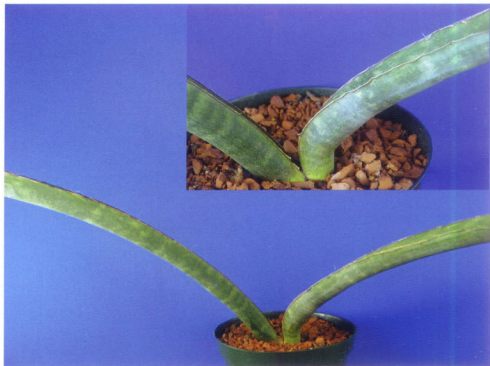
Sansevieria kirkii var. *pulchra* 'Coppertone' a most attractive form that keeps its copper color regardless of watering regime.

Sansevieria kirkii var. *kirkii* 'Superclone'

There are some differences between this plant and *S. kirkii* var. *kirkii*. However this plant is more vigorous, the length and width of the leaves appear to be the same as that of the latter. Other differences lie on the thickness of the subject plant being not so much thicker at the base of the leaves but at the blade as well. Besides, the back of the leaf is round without a noticeable keel, the color is overall darker and though also having markings, they lack the prominent white blotching of *S. kirkii* var. *kirkii* and in its place it shows indistinct cross-banding.

I have also seen this plant growing upright in pots, a possible result of it planted deep in the pot.

Origin not known but possibly from the East African lowlands.



Sansevieria kirkii 'Superclone', a plant much thicker than *S. kirkii* var. *kirkii*. This form has somewhat faint but distinct cross-banding rather than blotching.

Sansevieria kirkii 'Silver Blue'

Also known as *Sansevieria kirkii* 'Blue from Tanzania', this remarkable sansevieria is quite close to the type *Sansevieria kirkii* var. *kirkii*. The leaves however, are proportionately shorter and wider as well as thicker. The edges are much more wavy and have a thicker reddish line, with its corresponding thicker withered border. The color is a handsome silver-green in the younger stages of growth and turns greener as the leaf ages. The markings are more conspicuous and attractive. The leaves, being shorter and wider, appear to be more thicker than those of the type. Several longitudinal interrupted, narrow lines of dark green run along the adaxial side of the leaves.

The inflorescence has not been seen, but may possibly be a capitate raceme on a stalk similar to *Sansevieria kirkii* var. *kirkii*.

The cultivar name was given by the author of this book.



Sansevieria 'Kitonga'

A stemless plant with a creeping rhizome to 2.5 cm (1 in) thick. Leaves to 13, maybe less in mature specimens, 20-56 cm (6- 22 in) long, round 19-25 mm ($\frac{3}{4}$ -1 in) thick at the middle, gradually tapering from $\frac{1}{3}$ the length of the leaf to the base and also to the tip into a thin, mostly sharp acute brownish and withered tip. Leaves are shiny, slightly rough to the touch, dark green with quite faint cross-banding of lighter green. Channel deep and round, as wide as the leaf at the base and narrowing to the middle of the leaf, then having parallel edges to $\frac{3}{4}$ the length of the leaf or sometimes nearly to the tip. The channel ends in a spur at the "squarish" end produced by the parallel edges. Channel edges round, except nearly the base of the leaves, where they are acute, mostly whitish but sometimes reddish. The spur may not be present at times. Leaves are marked by numerous continuous impressed longitudinal lines all around the perimeter of the leaves, including the channel.



Inflorescence a spike-like raceme, very tall, to 1.00 m (41 in) tall, flowers 7-10 in a cluster, tube 25 mm (1 in) long, lobes 5 mm (3/16).

The plant comes from the Kitonga Gorge, Iringa Province, Tanzania and has been described as a cultivar by Michael Phillips of London, UK.

This sansevieria is quite distinct and it develops better characters in strong light.

Sansevieria 'Koko'

Underground creeping, but rather short, rhizome to 12 mm ($\frac{1}{2}$ in). Leaves disctichously arranged, spreading out, with short leaves, generally under 30 cm (12 in) long and 25 mm (1 in) wide and almost as thick, with a



shallow acute channel running all the way to a hard withered tip. The edges of the channel are reddish. Dull dark yellowish-green with grayish cross-banding, somewhat rough, marked with numerous continuous and interrupted lines all around the leaf including the channel. This plant is reminiscent of *Sansevieria deserti*, however the latter has a much larger size, leaves more erect and proportionately thinner.

Inflorescence a short spike-like raceme, 30 cm (12in) in height.

This sansevieria was found among the plantings of Koko Crater, in Hawaii, part of Foster Botanical Gardens, whose main site is in Honolulu.

There are no data as to the locality of origin of this plant.

Sansevieria 'Lav. 23251'

A sansevieria with a creeping rhizome to more than 13 mm (1 in) thick, orange color and with a stem to more than 2.10 m (7 ft) completely covered by the leaf bases. Leaves to 75 cm (30 in) long, 38 mm (1 ½ in) at the base and 6 mm (¼ in) thick. Leaves are not strap-shaped but rather widen from the base where they embrace the stem and then gradually taper from the base into a sharp spiny tip. The leaves are very thick. A channel as wide as the leaves runs all the way to the tip. Leaves a dull green with no cross-banding, with a few longitudinal interrupted lines on the abaxial side, at times grouped in twos.

Sansevieria 'Lav. 23251' a plant close to *S. arborescens* with shorter but having much thicker leaves.



The edges of the channel are reddish.

Inflorescence a panicle. Flowers not seen but presumably similar to those of *S. arborescens*.



Sansevieria 'Lav. 23251' to *S. arborescens* but having much thicker, stiffer leaves. Photo: Seymour Linden

This sansevieria was collected 20 Km North of Mogadishu, on road to Balad, Somalia.

A plant quite similar to the former having the cultivar name of 'Lav. 23328A' was collected 24 Km North of Mogadishu, on road to Harardeera.

Yet another sansevieria, closely related to the above ones, was collected by C.P. Bailes in Kismaayo, on sub-coastal sand dunes, in Somalia. This most unusual plant has a distinct blue-green color and is part of the "blue sansevierias from Somalia".

It also presents the longitudinal lines on the abaxial side of the leaves.

A slow growing sansevieria, not yet described.

One of the "blue leaves" sansevierias from Somalia. This one is close to *S. arborescens*.



Sansevieria liberica

This is a stemless sansevieria with an underground creeping rhizome 18 mm. ($\frac{3}{4}$ in) thick, pale grayish color. The leaves are 1-3 to a growth, erect or sub-erect when young, more or less spreading, when old, firmly coriaceous, smooth texture, 45- 98 cm ($2\frac{1}{2}$ - $3\frac{1}{4}$ ft) long, 5- 12.5 cm (2 - 5 in) wide, lanceolate, tapering from above the middle or somewhat abruptly at the upper portion into an acute apex with a subulate point to 8 mm (approx. $\frac{3}{8}$ in) long, green, becoming whitish but not hardened with age. Leaves tapering from below the middle down to a convolute base, but scarcely forming a petiole. The edges of the leaves are slightly wavy, without markings but usually with some indistinct paler green bands often confined to the basal part of the leaf on the upper side, but occurring far up or to the apex of the underside. The margins are red-



dish turning whitish with age. Inflorescence not seen.

This plant comes from Liberia without precise locality.

Sansevieria longiflora

A stemless plant with a thick underground creeping rootstock. Leaves 2-3 to a growth, smooth texture, 38- 45 cm (15-18 in) in length, 7.5-9cm (3- 3 ½ in) wide, coriaceous, narrowing down to a petiole 7.5 cm (3 in) long with a round channel. Edges of the channel reddish. Leaves dark green marked with blotches and spots of paler green scattered in irregular transverse bands.

The inflorescence is a spike-like raceme with a stalk 56 cm (22 in) tall, with long flowers, 2-3 in a cluster, tube 9-10 cm (3½ - 4 in), lobes 3.5 - 3.8 cm (1 3/8 - 1 1/2 in).

The type of this plant comes from the Congo.

This sansevieria is, at least, as easy to grow as *Sansevieria trifasciata*.



Sansevieria 'Malawi Bat'

A stemless plant with a creeping rhizome. Leaves to 1.20 m (4 ft) or more long, 30 mm (1 1/8 in) wide, 20 mm (3/4 in) thick from the edge of the channel to the abaxial side of the leaf. The leaves widen from about the middle to the tip becoming a flat leaf, an unusual behavior for a *Sansevieria*. Close to the top, leaves are to 80 mm (3 1/8 in) wide and 8 mm (3/8 in) thick. Leaves at the channel are 12 mm (1/2 in) thick from the bottom of channel to

the back of the leaf. Leaves are stiff, grow erect, smooth and somewhat shiny. Leaves are dark green in color, cross-banded with lighter green, edges of the leaves are reddish, and there are numerous continuous longitudinal impressed lines of blackish-green all around the leaves. Some of these impressed lines are to 3 mm (1/8 in) thick. This last character appears to be unique for this species. Tips withered, pointed or rounded.

The inflorescence is in the form of a capitate raceme on a stalk 25 cm (10 in) long.

As the name indicates, this plant comes from Malawi.



Sansevieria 'Malawi Midnight'

A stemless sansevieria with a creeping rhizome to 4 cm (1 ¼ in) thick orange, grey when exposed to light. Leaves are erect, lanceolate, 1-2 to a growth, 75 cm (30 in) long, 15 cm (6 in) wide, flexible, often drooping, dark green, dull, surface smooth, apex cuspidate. The leaves taper only a small amount from the middle towards the bottom to wrap around the newer leaf, or a leaf that has not quite grown.

When grown in strong light, the leaves are faintly blotched on the back with lighter grayish-green color, which disappears with age, marked with a very large number of continuous longitudinal lines of the same dark green color of the leaf and hardly noticeable on the front. The base of the leaves on the back may sometimes show a purple tinge. The edges of the

leaves are reddish and may sometimes be slightly wavy.

The striking inflorescence of this plant is in the form of a capitate raceme. The flower-stalk has a purplish color.

This sansevieria comes from Monkey Bay in Malawi.

The cultivar name was given by the author and it is being introduced here for the first time.



The very dark green leaves of this plant has suggested the name of *Sansevieria* 'Malawi Midnight'. Note the attractive capitate raceme inflorescence with a purplish peduncle.

Sansevieria masoniana

This sansevieria has been around for a very long time with the name *Sansevieria* sp. 'Mason/Congo'. Quite a distinct plant with an underground creeping rhizome that can reach huge proportions, 10 cm (4 in) thick or more if the plant is heavily fertilized. The leaves 1-2 to a growth, if well grown in bright light, should not measure more than 75 cm (30 in) and be quite wide, 25 cm (10 in). The leaves narrow considerably towards the bottom. This fact coupled with the remarkable width compared to the height, gives the leaves a paddle-like appearance. Leaves have a dark bluish-green color marked by a blotching of lighter green, not at all a cross-banding. The leaves are as stiff as sole-leather and the surface is dull and somewhat rough, the edges have a thin reddish color not always conspicuous. The bottom of the leaves and any sheath-like leaf present at the bottom has a purplish, rather than a dark-green color and appears to be closely cross-banded instead of mottled. The tips of the leaves are either cus-



pidate or rounded.

The inflorescence is a spike-like raceme, more than 50 cm (20 in) tall with a flower stalk covered by purple sheaths at the base, flowers are 3-6 to a cluster, perianth tube 26 - 30 mm (ca. 1 - 1 3/16 in) long, lobes 24 - 28 mm (7/8 - 1 1/8 in).

This sansevieria needs bright light to develop its typical shape and markings. If this plant does not have enough light the size will be considerable larger and the mottling will be inconspicuous or lost completely, appearing to be a different plant. This fact should indicate that this sansevieria is not difficult to grow.

This plant, now quite common in cultivation among collectors in the US was previously known as *Sansevieria* 'Mason/Congo'.

The name commemorates the surname of the collector Maurice Mason from Norfolk, England, where he grew commercially sugar beets. He collected the plant somewhere in the then Belgian Congo, later Zaire and now Democratic Republic of Congo.

There is a clone whose only difference seems to be its larger dimensions. The author has this clone growing in his garden as well. It also has "paddle-like" leaves. However, he has found that the size is only 20 to 30 % larger when grown in strong light as opposed to the much larger dimensions when grown in not as bright light. Much of the information going around among collectors is based on plants grown in poor light conditions and therefore, elongated.

Sansevieria metallica

A stemless plant with a creeping rhizome up 2.5 cm (1 in) thick, bright red in color, brown when exposed to air. Leaves 1-3 or more to a growth, erect with the upper part more or less spreading or recurved, firmly coriaceous, smooth 45 cm. to 1.50 m (1 ½ - 5 ft) long, 5- 12.5 cm (2-5 in) wide, 2-4 mm (approx. 1/8 in) thick at the middle, elongated-lanceolate or broadly strap-shaped, acute with a soft subulate green point to 6 mm (1/4 in) long, tapering downward from the middle to a deeply channeled petiole to 60 cm (2 ft) long and 2.5 cm (1 in) wide. Dull dark green, not glaucous,

somewhat obtusely marked with irregular or interrupted transverse band of irregular scattered or grouped blotches of pale green. Margins, at first, green, becoming whitish or reddish, not hardened.

The inflorescence is a spike-like raceme to 1.20 m. (4 ft) high, flowers are 2-4 in a cluster, tube 12-16 mm (1/2 – 5/8 in) long, lobes 13-17 mm (1/2-11/16 in).

Deemed to come from tropical Africa. The original description is from cultivated plants. The identity of this plant is not totally clear.



S. metallica in South Africa. Composite photo shows close-up. Note purple color on base of leaf. Photo courtesy Ernst Van Jaarsveld.

Sansevieria ‘Minnie’

This plant is one of the nicest representatives of the group of species or varieties found in the field that are close to *Sansevieria ballyi*. In fact, it appears that the only difference with the latter is the much shorter length of the leaves. This being the case, the leaves appear proportionately thicker. Other than that, there does not seem to be any other difference with the type. The inflorescence is a spike-like raceme as well.

This plant, collected in Kenya by the late Werner Rauh, is being presented here for the first time.



Sansevieria nilotica

Stemless, with a creeping underground rootstock 2 cm ($\frac{3}{4}$ in) thick. Leaves 2-3 to a growth, 90 cm to 1.20 m (3-4 ft) long, 2.5-5.5 cm (1-2 $\frac{1}{4}$ in) wide, strap shaped, with edges more or less parallel, narrowing up to a soft subulate point 1.5 cm ($\frac{5}{8}$ in) long., some leaves gradually tapering towards the bottom into a petiole with a deep round channel about half of the length of the leaf. The leaves are light green in color with green edges conspicuously marked, according to N. E. Brown, by irregular transverse, zigzag of dark and paler green.

The inflorescence is a spike-like raceme to 60 cm (2 ft) high, flowers 2-10 to a cluster, tube 2 cm ($\frac{3}{4}$ in) long, lobes 13 mm ($\frac{1}{2}$ in).

The type comes from Uganda without precise locality.

The identity of this plant is not clear to the author. Neither is *Sansevieria nilotica* var. *obscura*, the plant sold as such by the plant trade.

Sansevieria nitida

This sansevieria will not be very easy to identify through a picture unless the description is consulted. It has an underground creeping rhizome, orange in color but tan when exposed to light, 20 mm (3/4 in) thick. Leaves lanceolate, somewhat stiff, 1 to 2 per growth, but it may have as many as 5 in-curved, sometimes twisting and as long as 49 cm (16 in) but mostly less, 6 cm (2 1/4 in) wide and thin, 2 mm (3/16 in) thick. The adaxial side of the leaves is smooth and shiny and the abaxial side dull and rough. Both sides have a dark-green color marked with lighter green cross-banding of a bright appearance. The edges are reddish in color. The leaf has an acute apex and narrows down into a petiole.

Inflorescence 25 cm (19 in), 1 flower per node, tube 24 mm (1 in) lobes 26 mm (1-1/8 in). The epithet means *shiny* in Latin and accounts for the appearance of the upper side of the leaves.

New and not common at all in cultivation. Not difficult to grow but rather slow.

The type locality of this sansevieria is in the Galana Ranch, southeast Kenya.

Collected by G. Powys.

This sansevieria



has been sighted by L.E. Newton in the Kivuko Hills, the type locality of *S. ballyi*.

Sansevieria parva

This species has many leaves, usually more than 6, growing in all directions, and a stem that rises above the ground enough to be noticed. The leaves are about 18 mm (3/4 in) wide, sometimes with a fold that keeps them erect, about 30 cm (12 in) long and the cross-banding is almost identical to that of *Sansevieria trifasciata*. Other clones display a bright cross-banding. This may lead to confuse this plant with another species. In habitat this plant grows in semi-shade to deep shade, a fact that contributes to its variation in cross-banding. The thin rhizomes grow, many times, at ground level and are mostly covered by mulch or dried leaves that fall from the trees above. In fact, one can pull a plant and a trail of barely rooted rhizomes, along with their corresponding growths, will follow.

It is a species easy to recognize because of the narrow, thin leaves,



their curving outward and a soft subulate point that can reach more than 7 cm (3 in) in length. The inflorescence is a spike-like raceme to 30 cm (1 ft) long that starts with a beautiful purple color. A group of flowering plants is a sight to behold. This fact has given it the popular name of Kenya hyacinth. The plant bears 2 flowers per fluster, tube is 11 mm (7/16 in) long, lobes 9 mm (5/16 in).

As expected, the type locality is in Kenya, near the Gilgil River.

This plant is quite easy to grow and a fast grower as well.

This is a small and graceful plant that lends itself nicely to be grown in a hanging basket.

Sansevieria patens

Has an underground rhizome, not quite creeping, up to 2.5 cm (1 in) thick. Leaves 5-10 to a growth, firmly flexible, distichous, the inner leaves longer and reaching a length of 90 cm (3 ft) and 2.5 (1 in) wide by 3.5 cm (1 3/8 in) deep at the base, somewhat rough at all stages of growth. The leaves have a channel, much narrower than the width of the leaf, running from the base to the tip, tapering abruptly when they reach the hard, withered tip.

The color of the leaves is dark-green and somewhat indistinctly marked with gray-green cross-banding, at all stages of growth, that is not quite conspicuous. Longitudinal, very impressed lines run continuously and are regularly distributed on all sides of the leaves. The channel is acute but the margins of the channel are quite rounded and green at all stages of growth. However, in the juvenile stage, this sansevieria does not have a creeping, but rather a very short rhizome. It is interesting to note that this sansevieria, having a somewhat rough surface, has at the same time, a shiny, waxy texture at all stages of growth.

Inflorescence a spike-like raceme to 73 cm (2 ½ in) long. Flowers 2-3 to a cluster, tube 11 mm (3/8 in), lobes 13 mm (1/2 in).

It is interesting to note that N. E. Brown, author of this plant,

described it with characters that do not quite match the sansevieria we currently know in cultivation as *S. patens*. One of them, and the most important one, is the deep impressed longitudinal lines this plant shows in all stages, whether just a baby in the juvenile stage or as a full grown plant in maturity. It is hard to believe, if not impossible, that N. E. Brown thoroughness would have missed that in his description.

The plant we know as *S. patens* in cultivation comes from the USDA plantings for the research on sansevieria fiber in Florida, which were later transferred to Koko Crater, in the island of Oahi, Hawaii. The plantings of succulents at the Crater are part of Foster Botanic Gardens located in Honolulu, Oahu. The Gardens provided Ed Eby and his wife Alva with a sketch of the sansevieria plantings. Ed found there a little plant, that was shriveled, in poor shape and brought it to his own garden, from where he distributed it to his collector friends, among them the author. After only a decade, the plant has been propagated to such an extent that its survival is more than guaranteed.

The true identity of this plant is somewhat subject to question. A very attractive plant, particularly in the younger stages, not quite so at



maturity, this plant is easy to grow in medium to bright light.

The meaning of the epithet is *spreading* in Latin.

The origin of this plant is unknown but it is deemed to come from the then British East Africa, which comprises Kenya, Tanzania and Uganda.

Sansevieria pearsonii

A stemless plant with a stout underground rootstock. Leaves in the mature stage 3-5, distichous, straight and erect, rigid, diverging from the base to the apex, so that the tip of the inner leaves are 10-30 cm (4-12 in) apart. Leaves 60-90 cm (2-3 ft) long, 3 cm (1 ¼ in) wide, 3.5 - 4 cm (1 3/8-1 ½ in) thick at the base, smooth at the bottom and slightly rough at the top of the leaves. Leaves rigid and tapering gradually from the base to a hard tip with an acute channel running all the way to the tip. The edges of the chan-



nel are acute and reddish. Leaves have continuous longitudinal lines running along the entire length of the leaves. Leaf color is glabrous-green or bluish-green marked when young with very faint cross-banding.

Inflorescence a spike-like raceme 1.22 m (61 in) tall, 2- 4 flowers per cluster, tube 6 mm (1/4 in) long, lobes 9 mm (3/8 in).

The type comes from south Angola, also found in South Africa.

The epithet is dedicated to the collector Prof. Pearson.

Sansevieria perrottii

Sansevieria with a creeping rootstock and a stem 12.5-20 cm (5 -8 in) high, covered by the leaf bases, 2- 2.5 cm (3/4 - 1 in) thick. Leaves 8-12 to a growth, distichous when mature, ascending or spreading, the inner of the adult plants 90cm. to 1.5 m (3-5 ft) long, with a deep acute channel as wide



Sansevieria perrottii in 10 cm (4 in) pot. A bluish *sansevieria*. Notice the extreme curvature of the leaves. This juvenile plant comes from Horst Pfennig.

as the leaf throughout the length. The back of the leaves are very rounded, 2-2.5 cm ($\frac{3}{4}$ - 1 in) wide, 2.5 - 3 cm (1- 1 $\frac{1}{4}$ in) thick near the base. The leaves narrow to the apex to a hard white tip. The edges of the channel are acute and marked with a thin reddish line. There are a few longitudinal impressed lines running along the entire length of the leaves. The color is dark-green, somewhat bluish. No trace of cross-banding at any stage.



Possibly *Sansevieria perrotii* (Dyer 49) in the garden of Anne Powys, quite different from *S. robusta*. This plant was collected by A. Dyer in Kilifi, Kenya.

Inflorescence branched, to 1.20m (4 ft), flowers 2-5 to a cluster, tube 6 mm (1/4 in) long, lobes 9 mm (3/8 in).

This sansevieria comes from near Lindi, Tanzania.

This plant belongs to the *S. ehrenbergii*/*S. robusta* group and, as such, needs to be provided with strong light to grow well.

The plant pictured was identified and distributed by the late H. Pfennig. Other than the extreme curvature of its leaves, it appears to respond quite well to N.E. Brown's description. It is the author's opinion that the group comprised by this and the plants mentioned above should be thoroughly reviewed, as the boundaries between them are not clear.

The epithet commemorates the collector B. Perrot.

Sansevieria phillipsiae

This sansevieria has a short, erect stem and bears stolons 7.5-20 cm (3-8 in) long, less than 1.5 cm (1/2 in) thick, covered by withered sheaths. The growths are also covered on the base by leaf sheaths or withered scales. The leaves are 4 to 8 to a growth, oval in cross-section, that is, compressed-cylindric, pointed in all directions but many times more or less on a plane, ascending and very spreading, curving and tapering gradually towards the tip into an acute spine. The texture is slightly rough and sometimes smooth, somewhat flexible, 19-45 cm (4-18 in) long, 1-2 cm. (1/2-3/4 in) thick with several impressed longitudinal lines running all the length of the leaves.

The color is yellowish-green with conspicuous cross-banding of darker green. There is a channel, usually short, that does not reach more than half the length of the leaf, wide at the bases and narrowing after

Inflorescence a spike-like raceme to 45 cm (18 in) long, 3-6 flowers per cluster, tube 11 mm (7/16 in), lobes 13 mm (1/2 in).

The epithet is dedicated to the woman who sent the plant to Kew, Mrs. Lort Phillips, meaning *of lady Phillips*.

This sansevieria comes from northern Somalia.

This description does not quite agree with that of N. E. Brown, as it

appears that the plant known to us in cultivation as *Sansevieria phillipsiae* is not quite the one Brown received and described.



Sansevieria phillipsiae as known in cultivation. This plant does not quite match N. E. Brown's description.

Sansevieria pinguicula

This is a favorite sansevieria. The plant has a short stem, always covered with leaves laid on a rosette in the juvenile stages. The plant is distichous in the mature stages. The adaxial side has a very wide channel to almost the width of the leaf. This channel has reddish edges. The leaves are 12- 30 cm (5 -12 in) long, quite thick to 3.5 cm (almost 1½ in) thick , at the bottom

and tapering fast to a very spiny tip. The color of the leaves is bluish-green turning to a more yellowish darker green with age. It does not have any trace of cross-banding or any lines at any stage of growth.

The plant grows stolons not covered with sheaths and grayish in color. The new growth then sends roots into the ground at an elevated height, the rootings in the air thus, making the plant look as if it were on stilts. Because of this, this plant and others of similar habit are called "walking sansevierias" in Kenya. The stolon snaps easily where it meets the parent plant, but caution should be taken not to remove new growth until the roots have developed to 3 cm (1 ¼ in) or more, otherwise new roots will not develop.

This species is easy to identify, unless in the younger stages where one may confuse it with *Sansevieria robusta* or *S. ehrenbergii*. However, the roundness of the adaxial side of the leaves should help in the identification.

The inflorescence is a panicle with very small flowers of brownish color. This sansevieria has also the deepest stomata by far of all sansevierias:



these fact apparently are the result of very xeric conditions prevalent in the habitat of this plant. The type locality is Bura, in the Northern Frontier Province, Kenya. A second plant has been collected by John J. Lavranos and L.E. Newton, not too far, in Garissa. This clone is said to be more bluish but the author has not found it to be so. There is another clone, smaller in size and certainly not bluish, collected by W. Powys at the Koni

airstrip, N.W. corner of Galana Ranch.

Inflorescence branched 30 cm (12 in) long, 4-6 flowers per cluster, tube 5 mm (3 /16 in) long, lobes 3 mm (1/8 in).

The existence of a giant clone is claimed by some commercial nurseries. The fact is that the dimensions given by P.R.O Bally already qualify as "giant". Further, the author of this book brought from the Heidelberg University collection a piece of one of the plants collected by Bally of regular size and has grown it to "giant" dimensions in southern California and later in Florida. A mature specimen of this plant is distichous.

The epithet appears to mean "fattish" from the Latin *pinguis*, meaning fat and attributed to the shape of the leaves.

A definite sculptural plant of great value.

Sansevieria powellii

This is a plant with a creeping rhizome and a stem 1.2m (4 ft) tall or more, according to growing conditions covered by the leaf bases, 2-2.5 cm ($\frac{3}{4}$ - 1 in).

Distichous with leaves 12 - 20 or more to a growth ascending or spreading, 90 cm to 1.50 m (3 - 6 ft) lg., with a deep acute channel as wide as the



Splendid group of *Sansevieria powellii* in flower, in habitat near Voi, Kenya. Notice tall inflorescence above leaves.



Mrs Doris Pfennig is holding *Sansevieria powellii* in flower grown in northern Germany by her husband. Photo: Horst Pfennig.

leaf throughout the length. The leaves are 2 - 2.5 cm ($\frac{3}{4}$ - 1 in) wide, 1 - 1.5 cm ($\frac{3}{8}$ - $\frac{5}{8}$ in) thick from the bottom of the channel to the back near the base. The adaxial side of the leaves is very rounded and the leaves taper gradually to the apex, which has a hard acute white tip. The edges of the channel are acute and have a reddish color.

The inflorescence has a flower stem 1.20 m (4 ft) or more, towering above the plant, branched. The flowers are 2-3 to a cluster, tube 6 mm ($\frac{1}{4}$ in) long, lobes 11 mm ($\frac{7}{16}$ in). The color is dark green with no trace of cross-banding at any stage of growth.

The leaves of this plant are marked with impressed longitudinal lines, at times thick, of

darker green color. these lines are where the plant shrinks when dry.

The type for this sansevieria comes from Tanzania. It is quite common in Kenya, east of Voi.

This is a very attractive sansevieria on account of its "fountain-like" appearance in the mature stages. It can be seen in plantings in the formal gardens of hotels around the habitat of this plant. New growths offsetting from mature specimens may not show a distichous arrangement of leaves but rather leaves growing in all directions or leaves arranged in a spiro-distichous manner. These characters could prove deceiving for the collector who is trying to identify this species in both the immature and mature species.

Sansevieria raffillii

A stemless sansevieria with a stout creeping rhizome 2-5 cm ($\frac{3}{4}$ -2 in) thick. Leaves 1-2 to a growth with some sheaths surrounding the base, erect, rigid, smooth, 60 cm to 1.05 m (2-3 $\frac{1}{2}$ ft) long, 5.5-12.5 cm (2 $\frac{1}{4}$ -5 in) wide, 6 mm-1 cm ($\frac{1}{4}$ - $\frac{3}{8}$ in) thick at the middle of the leaf, elongated, lanceolate or widely strap-shaped. Leaves narrow down to a round channeled petiole. Younger leaves dark-green, sometimes glaucous, handsomely marked with blotches of irregular transverse bars of yellowish-green, the lighter color occupying a larger area.



The inflorescence is a spike-like raceme up to 1.10 m (3 $\frac{3}{4}$ ft), with sheaths at the base colored like the leaves, there are 2-6 flowers to a cluster, tube 27 mm (1- $\frac{1}{8}$ in) long, lobes 27 mm (1- $\frac{1}{8}$ in).

This plant has 2 leaves at maturity. Further identification characters are the shape of the leaves, strongly curved inwards, their stiffness and the conspicuous cross-banding.

The type for this plant comes from the Tsavo District in Kenya.

Sansevieria rhodesiana

Stemless with a creeping underground rootstock. Leaves 3-4 to a growth, straight or nearly so, stiffly erect, with the tip of the inner pair of leaves separated about the same as at the base. Slightly rough, 90 - 165 cm (3- 5 ½ in) long, 2 - 2.8 cm (¾ - 1 1/8 in) wide, 2.8-3 cm (1 1/8 - 1 ¼ in) thick, gradually tapering from the base to a stout hard acute whitish point. An acute channel runs along the length of the leaves, nearly or quite to the apex, with an acute, reddish edge. This channel is wider on the outside leaves and narrower on the inside. The color of the leaves is medium green without transverse bands, marked with numerous, continuous and interrupted longitudinal lines of darker green color, many of them impressed forming furrows.

The inflorescence is a spike-like raceme, flowers 8-9 to a cluster, tube 8-12 mm (3/8 - 5/8 in) long, lobes 16-18 mm (5/8- 3/4 in).

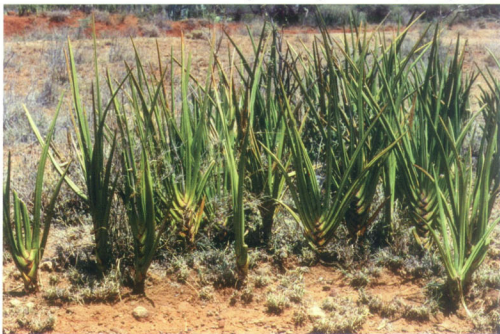
The epithet refers to the country of Rhodesia, the former name of Zimbabwe, where the type for this plant originated.



Sansevieria robusta

This is a very particular species that presents many growth habits that can deceive the most experienced collector. The different stages of growth coupled with the various growing conditions create a good number of growth forms.

A plant with an underground rhizome more than 4 cm (1½ in) thick, It presents a stem in the mature stage to 60 cm (2 ft) high. This stem is covered by the leaf bases. Leaves 6 to 14 to a growth, rigid, distichous, crowded, erect or sometimes spreading, smooth. The inner leaves larger, to 1.80 m (6 ft). The leaves are laterally compressed with flattened sides and very rounded on the abaxial side with an acute and flattened channel as wide as the leaf. Sometimes the channel is narrower than the width of the leaf. This channel turns wider than the leaf towards the base. The edges of the channel are acute and reddish in color. Dark-green and glaucous when not grown in



A group of *Sansevieria robusta* in habitat, 26 Km. South of Kijabe near the main Kedong River, Kenya. Notice the thickness of the leaf bases and the yellowish color.

the sun, the color turns yellow-green when grown in full sun, as seen in habitat. The leaves narrow abruptly into a hard and spiny point. There are no markings or cross-banding on the leaves except for numerous continuous or interrupted dark-green lines that are arranged in twos and fours. These turn into furrows with age and are the lines where the plant shrinks when it lacks



Sansevieria robusta in cultivation with fruits still green, which will turn orange when ripe.

water. These lines are an important character of this species.

Though sometimes not grown in full sun, in order to grow, this plant needs bright light: it cannot survive in low light conditions. A plant grown in semi-shade will have dark green color.

The inflorescence is a large panicle, 120 cm (4 ft) tall, with small brownish flowers spread apart. The fruits and seeds are small as well.

The meaning of the epithet is self-explanatory.

Richard Leakey is said to have used the sap of the leaves to treat

the painful punctures caused on the skin by the tips of this species when on his field trips in Kenya.

The type for this plant comes from Voi, Kenya. Thousands of them can be seen along the sides of the road from Nairobi to Voi.

This is a slow growing but quite a sculptural sansevieria.

Sansevieria rorida

This very attractive sansevieria has an underground creeping root-stock with a stem 7- 17 cm (3-7 in) high covered by the leaf bases. Leaves 11-15 to a growth, rigid, distichous, 30-52 cm (1¼ - 2 in) long, 2.5- 3.5 cm (1 - 1 3/8 in) thick, 2 - 2.5 cm (¾ - 1 in) thick at the base, straight or slightly curved with an acute, or sometimes round, channel running all the way to the tip. The channel width is about 2/3 the width of the leaf, edges reddish. The leaves gradually taper to a hard spiny tip. The leaves have a somewhat glaucous dark green color with no trace of cross-banding at any stage of growth and several longitudinal lines of darker green on the sides and back running all the way to the tip.

The inflorescence has a flower-stem 90 cm (3 ft) long, branched; flowers 3.4 to a cluster, tube 6 mm (1/4 in), lobes 11-13 mm (7/16 - ½ in).

The meaning of the epithet is *bedewed*, clearly referring to the extra-floral nectar, which is not only present on this but on all sansevieria species.



The type for this sansevieria comes from Mogadishu, Somalia.
This is one of the “blue sansevierias” of Somalia.

Sansevieria 'Rosea-Grandis'

This is an unpublished, and therefore, invalid name. Also, the author's opinion is that this plant is a dwarf form of *Sansevieria subspicata*. It could qualify, at most, as a variety of the latter. No serious work has been done to determine whether it is actually a dwarf form or it is on a temporary state of growth. This sansevieria is mentioned with that name because that is the way it is known in horticulture.



Sansevieria roxburghiana

A stemless plant with a creeping rhizome. Leaves 6-24 to a growth, growing in all directions, smooth above, slightly rough below, inner adult leaves ascending and slightly recurving, somewhat stiff 20- 60 cm ($2/3$ - 2ft) long, 1.2-5 cm ($1/2$ - 2 in) wide 1.5-2 mm (ca. $1/8$) in thick, linear with a very deep channel down the face, rounded or very obtusely keeled on the back, gradually tapering into a stout subulate soft green point .6 - 2.5 cm ($1/4$ - 1 in) long. Leaves are transversely marked with darker green, rather regular bands, on both side and with numerous longitudinal dark green lines. The edges are green, sometimes whitish.

Inflorescence to 75 cm ($2\frac{1}{2}$ ft), flowers 4-6 in a cluster, tube 6 mm ($5/16$ in) long, lobes 7 mm (ca. $1/4$ in).

This plant as such, comes from the Coromandel Coast of India and needs somewhat bright light.

There is some confusion about the various clones of this plants, some of them appear to be wider than others. It seems that after this plant attains maturity, the leaves become all narrower and quite long, as depicted



Sansevieria roxburghiana in habitat, in India. Photo by R. Haresh from Madurai, India.

on the field picture that appears on the previous page. Samples of both the “wider” and “narrower” clones are shown on this page.



A propagation of a field collected plant, this *Sansevieria roxburghiana* presents wide leaves.



Also a propagation of a field collected plant this specimen of *Sansevieria roxburghiana* shows narrower leaves.

Sansevieria sambiranensis

A stemless plant with a creeping rhizome 20-30 cm (6 –10 in) long, 1-2 cm ($3/8$ - $3/4$ in) thick. Growths in a rosette of 15-20 leaves, quite rigid, reaching to 1.20 m (4 ft) in height. The petiole has a channel, slightly widened towards the base, with an embracing and striated sheath; blade widely oblanceolate 28-58 cm (11-23 in) long, 2.5-9 cm (1-3.5 in) wide, much wider towards the upper fourth, attenuate from there down to the base, where it is not symmetrical with respect to its axis and more or less decurrent on the petiole, but only on one side; thin ribs, only the middle one protruding at the base. Inflorescences, 4-5 per stalk, peduncle short 2-9 cm ($3/4$ - $3\ 1/8$ in), not thick 3-5 mm (1/16 in), carrying 6-7 flowers ca.. 1 cm ($3/8$ in), with 6 ribs, the middle one protruding with a keel; clusters shape sub-corymbose or sub-capitate, 4-5 cm. ($1\ 5/8$ -2 in) in diameter, with a short peduncle 1-2 cm ($3/8$ - $3/4$ in) long and with very numerous flowers densely arranged, bracts a beautiful carmine rose, 6-7 mm. ($1/4$ in) long, pedicels 7-20 mm ($1/4$ - $3/4$ in) long, having almost a uniform length for any one inflorescence, on the other hand varying from inflorescence to inflorescence. Perianth a beautiful carmine red 30-32 mm ($1\ 1/4$ in) long, to 40mm ($1\ 1/2$ in) up to the edge, with a stipe 1-3 mm (ca. 1/16 in), receptacle with a very low cup; tube approx. 10 mm ($3/8$ in), segments equal and similar, first of a certain length and then curled and reflexed, narrow, somewhat wider at the tip (2mm) (1/16 in) than at the base 1.8 mm ($1/32$ in). Stamens somewhat shorter than the perianth, the interior somewhat shorter than the exterior ones; filaments inserted on the tube, then attached to the base of the segments approx. 12 mm ($1/2$ in), the free ones, free above and rather wide (0.5 mm) ($1/64$ in); anthers attached to the filament at the middle, elliptic 3 x 1 mm ($1/8$ x $1/32$ in), very obtuse. Ovary attenuate with two sides; ovule mounted on a thick chalaza lining; style long 33-34 mm (ca. $1\ 3/8$ in), bent and replicated at the tip, quite thick, ending with a truncated butterfly-shaped stigma. Berry somewhat wider than high, approx. 7 x 10mm ($1/4$ x $3/8$ in), yellow when mature, 1-3 seeds; seeds flat on one side, convexed on the other, approx. 6 mm ($1/4$ in) (long and wide), yellow, with very hard albumen: embryos straight, cylindric and short; the location of the radicle indicated on the outside by a sort of funnel-

shaped obturation, hollow, the opening turned outside.

ESTATE OF SAMBIRANO Shaded and humid rocks (liassic sandstone) of the Sambirano basin, at the foot of the Manongarivo massif and of the Mts. Galoko and Klabenono (Perrier No. 8380, May 1909 and NO. 8379, Nov. 1909. types (P).

This beautiful plant, which renders very ornamental red flowers grouped in a dome at the base of the leaves, is rare and localized at the few remains of primitive forest which still exist in the small estate of Sambirano. It does not resemble *S. canaliculata* at all, which has cylindrical leaves and whitish flowers, with a spike-like raceme, narrow, nearly as long as the leaves. from the geographical point of view, the locality of the only sansevieria indigenous to Madagascar on this point of the North-West, where the

flora presents African affinities more evident than elsewhere, is equally an interesting fact to note.

NOTE: The above is a translation from the French by the author of this book of the original description by H. Perrier de la Bathie. He has purposely included the entire description as he deems that until field material is introduced, identifying this plant as a sansevieria is somewhat doubtful.



Pressing of a specimen and several inflorescences of *Sansevieria sambiranensis*. KEW HERBARIUM

Sansevieria scabrifolia

Rhizome horizontal, creeping. Growths consisting of 6-7 leaves. These 25 to 35 cm (10-14 in) long, 16 to 20 mm ($5/8 - 3/4$ in) wide (laid flat) strongly narrowed at the base and this itself lying 20 to 30 mm ($3/4 - 1 - 1/4$ in) wide, upwards gradually narrowing to a 2.5 cm (1 in) long, dry, sharp, yellowish-white tip. The leaf is bent into a channel or also almost folded and the edges are colored with a band of almost 1 mm (ca. $1/64$ in) wide. The upper and the lower sides (also of the red margin) are very rough from hard, densely placed little "warts". The 30 to 45 cm (12- 18 in) peduncle (including the flower part) is 4 to 6 mm ($3/16 - 1/4$ in) thick, smooth (not rough as the leaves) has 6 to 8 membranous, lanceolate acute bracts 20 to 23 mm ($3/4 - 7/8$ in) with ± 8 nervatures .

Flowers in clusters of 4 to 6 on a flower stem 25 to 30 cm (10-12 in) long , 6-7 mm (ca. $1/4$ in) wide. Pedicels 7 to 8 mm (ca. $5/16$ in) long, articulated near the middle. Flower 40 to 43 mm ($1 \frac{1}{2} - 1 - 5/8$ in) long, of which the lobes are 20 mm ($3/4$ in) long, yellowish-white, very narrow, somewhat widened at the tip, segments ending in a blunt hood; free anthers 4.5mm ($3/16$ in) long reaching the whereas the pistil exceeds them by 1 mm (ca. $1/64$ in) – berries ca. 9 –10 mm (ca, $3/8$ in) in diameter, wax-yellow.

This species differs from *S. Volkensii* Gürke, which is the closest to the tropical African sansevierias, by the leaves being gray-green, cross-banded, rough on both sides, red edged and by the 40 mm ($1 \frac{1}{2}$ in) long flowers (on *S. Volkensii* at most 26 mm (ca. 1 in long), from *S. thyrsiflora* Thunberg by the 2 cm ($3/4$ in) wide leaves (on *S. thyrsiflora* 3 to 5 cm($3/16 - 2$ in) wide and the rough leaf surface. Were this in *S. thyrsiflora* so strikingly rough, it would not have been overlooked by Baker.

Hereroland: Otavifontein in the bush-forest blooming on limestone. 24 Jan. 1925, Dtr. 5377¹.

There does not seem to be any plant that fits the description above other than certain clones of *Sansevieria aethiopica*.

1. NOTE: Translation from the German by the author of the original description by Dinter. Ref.: Dinter, in Fedde, Repert. xxx. 85 (1932).

Sansevieria scimitariformis

A stemless sansevieria with an underground rootstock 3 - 4 cm ($3\frac{1}{4}$ - $2\frac{5}{8}$ in) thick. Leaves 4-6 to a growth, dark green in color with transverse bands of blotchy gray patches, 50 - 70 cm (20 - 28 in) long, 5 - 10 cm ($2\frac{1}{2}$ - 4 in) wide, up to 3 cm ($1\frac{1}{8}$ in) thick at the base, in-curved and recurved, very rigid, with impressed longitudinal lines evenly spaced on both surfaces, sometimes more concentrated towards the center of the adaxial side and the edges of the abaxial side of the leaves. Margins occasionally wavy, reddish with an edge sometimes detaching into fibers. Apex rounded or cuspidate.

Inflorescence a capitate raceme 15 cm (6 in) tall with a stalk 10 cm. (4 in) long, arising from the leaf bases, at almost ground level. Long flowers, more than 12 cm (5 in) long. Fruit globular, orange in color and rugose.

The epithet, meaning *in the form of a scimitar*, the author indicates, refers to the swept-back appearance of the leaves reminiscent of a scimitar.

The type comes from an area 9 km east of Shamwa, Zimbabwe.



Sansevieria senegambica

This is a stemless sansevieria with an underground creeping rhizome, to 2 cm ($\frac{3}{4}$ in) thick, burnt orange in color becoming brownish when exposed to light. Leaves lanceolate 3-4 to a growth, flexible, 30-75 cm (1-2 $\frac{1}{2}$ ft) long, to 6.5 cm (2 $\frac{1}{2}$ in) wide, not quite erect at the bottom and then spreading above. The leaves taper gradually from the middle upwards to a short subulate green point above and narrowing downward to a narrow channeled petiole. This petiole is not as prominent in younger leaves.

Leaves apple-green or darker with indistinct markings of pale green. The texture is smooth, almost waxy and the edges are green.

Inflorescence a spike-like raceme to 50 cm (20 in) long. Flowers 3-6 to a cluster, tube 6 - 13 mm ($\frac{1}{4}$ - $\frac{1}{2}$ in) long, lobes 11 - 13 mm (7/16 - $\frac{1}{2}$ in).

The epithet of the name of this plant comes from the combined word for both Senegal and Gambia.

This is one of the easiest sansevierias to grow.



Sansevieria sinus-simiorum

This is a new sansevieria that is certainly quite distinct. It was known, before its publication as *Sansevieria* 'Super Bat', a name given by the author as well.

This is a stemless plant with an underground rhizome, gray in color and 5 cm (2 in) thick.. The leaves vary considerably in number, up to 10, can reach up to 1 m (40 in). They have a smooth, waxy surface. Leaves are erect or slightly curved backwards or sideways, with a massive "D" section, 4 cm. (1 ½ in) wide and 4 cm. (1 ½ in) thick at mid-height, slowly tapering to the tip. When young, the leaves are marked with inconspicuous cross-banding. Mature leaves are dark green and have no trace of cross-banding. The leaves have a round channel that runs all the way to the tip and is about 1/3 the



width of the leaf at the base and widens to almost the full width of the leaf at the top. The edge of the channel is acute and reddish in color. Leaves are marked with longitudinal continuous and interrupted impressed lines. The apex is obtuse and a continuation of the channel.

The inflorescence is a huge capitate raceme, 19 cm (7.5 in) in diameter, with very long flowers on a stalk about 30 cm tall (12 in), closely reminiscent of the inflorescence of *S. stuckyi* to which it is related.

The name comes from

the area where A. F. M. Burdett, the English collector, found it, that is, Monkey Bay in southern Malawi.

As with most sansevierias with round leaves, this plant requires bright light to grow well, otherwise it is not difficult to grow.

Sansevieria sordida

This sansevieria has a creeping rhizome. Stemless, or with a short stem covered by closely spaced leaf bases. Leaves 4-12 to a growth, distichous, slightly spreading. Straight or slightly curved, remarkably rough 75-105 cm (2 ½ - 3 ½ ft) long, 7 - 12 mm (3/8 - 1/2 in) wide, 12 mm-20 mm (½ - ¾ in) thick, slightly compressed-cylindric at the base, tapering to an acute, spine-like whitish point reddish at the base 1 mm (1/32 in) long. An acute channel, much narrower than the leaf, runs down the face for the greatest part of its length, becoming flattened towards the base with 11-15 or perhaps more grooves down the sides and back, not caused by shrinkage. Leaves are dull bluish-green with numerous darker longitudinal lines, those in the grooves continuous, those between the grooves, interrupted. Edges of the channel acute, reddish.

Inflorescence a spike-like raceme to 60 cm (2ft) high, flowers 7-14 to a cluster, tube 7-11 mm (¼ - 7/16 in) long, lobes 15-17 mm (5/8 - 11/16).

The epithet means *dirty*, *soiled* in Latin, possibly referring to the dust coming from the lateritic soils of east Africa and staining the lower part of the plant.

The origin of this plant is unknown and its identity is not clear.

Sansevieria stuckyi

A stemless sansevieria with a creeping rootstock. Leaves totally erect, 1- 3 leaves to a growth, 1.50 -2.10 m (5 -7 ft) long, though reportedly longer in habitat, to 6.5 cm (2 ½ in) thick at the base, gradually tapering to the top to a, sometimes non-existent, withered tip. There is a very shallow round channel that runs all the way to the tip of the leaf. The edges are mostly rounded, though when they reach the top they may turn acute and present a thin reddish edge with the ever-present withered border. Where the edge of the channel is acute, it is sometimes, but not always, reddish in color. The tip of the leaf is round. The color of the leaves is dark-green, slightly yellowish and are faintly marked with lighter grayish-green bands. The texture of the leaves is smooth and somewhat waxy. There are several deep impressed longitudinal lines running the full length of the leaves.

In the younger stages, the leaves have a very distinct color and shape that allows the collector to readily identify this plant. The leaves are flat with a deep channel as wide as the leaf and a reddish edge. The leaves curve considerably backward, are smooth and of a dark yellow-green color marked by



conspicuous cross-banding. The bottom of the leaves have an ochre-pinkish color at their base

The inflorescence is a notably large capitate raceme, about 25 cm (10 in) in diameter on a stalk 30 cm (12 in) high.

The type comes from Beira, Mozambique.



Planting of *Sansevieria stuickyi* in the author's garden. The largest leaf is 2.10 m.(approx.7 ft.) tall. Regular rains and a dry season without total absence of rains prevent regular flowering of this plant.

Sansevieria subspicata

A stemless plant with an underground creeping rhizome to 2.5 cm (1 in) thick. Leaves 4-8 to a growth but usually less, coriaceous. Erect or spreading, smooth, 15 - 60 cm (5 - 24 in) long, 2.5 - 6 cm (1 - 2 ¼ in) wide, 2 mm (less than 1/8 in.) thick at the middle of the leaf, lanceolate, with soft subulate soft green point withering to white. Many leaves taper from the middle, or a little above, down to the bottom of the leaf forming a distinct petiole with a concave channel. In this respect, some leaves of this plant could fall into the "spoon-shape" division of leaves. Leaves are dark-green or very dark-green, almost black, when grown in poor light, marked by conspicuous cross-banding when grown in brighter light. The texture of the leaves is not quite smooth resembling that of ground-glass with a waxy surface. The edges of the leaves are either green, often with a very thin reddish line, or withered.

The inflorescence can reach 40 cm (16 in), flowers in pairs or solitary, tube 23 - 29 mm (7/8 - 1 1/8 in), lobes 15-18 mm (5/8 - 3/4 in).

This species is perhaps one of the most challenging to identify for collectors with limited experience. However, if one observes a few characters of this plant, one will, in all probability, identify it easily. One character is the strong variation of the size and shape of the leaves, which are usually not large. Another character resides in the strongly petiolate nature of some of the leaves, and the third one is the give-away ground-glass surface of the leaves.

This sansevieria has been around for a very long time and many botanical gardens seem to cultivate it. It was published in England as a new introduction in 1889 in the Gardener's Chronicle. Its long existence in cultivation has made it a popular plant in botanical gardens. It can often be seen growing in low light conditions, where it will turn very dark green in color, almost black and showing no trace of cross-banding.

The type plant was sent off a cultivated specimen, from Delagoa Bay in Mozambique and claimed to be from South Africa.

Not a difficult plant to cultivate.

The epithet means *sub-spicate* in Latin in reference, no doubt, to its spike-like inflorescence



Sansevieria subtilis

A stemless plant with a creeping rhizome to 1 cm (3/8 in) thick. The leaves are 2-4 to a growth 50-70 cm (1 ¾ - 2 ¼ ft) long, 2.4- 4 cm (1-1 ¾ in) wide, linear-lanceolate, gradually tapering from the middle upwards to a soft subulate soft green point to 2.5 cm (1 in) long and narrowing downward to a channeled petiole. Uniformly green and glossy on both sides or with an occasional trace of cross-banding on the abaxial side of the leaf. The edges of the leaves are green and not hardened.

Inflorescence a spike-like raceme 40-63 cm (16-21 in) tall, 2-3 flow-

ers in a cluster, tube 6-8 mm (1/4-5/16 in), lobes 11-13 mm (7/16-1/2). The leaves grow tall, curve and tend to flop.

This sansevieria has the appearance of a plant coming from a more humid habitat than most of the other ones. In this respect, it can be compared to *S. trifasciata*, however the leaves are softer and more flexible than the latter. It is not difficult to grow and does not require very bright light.

The type of this plant comes from Uganda without precise locality. The meaning of the epithet is *delicate* in Latin.



Sansevieria 'Sudwalla Caves'

A stemless plant with a creeping rhizome, mostly quite long, to 1 cm (3/8 in) thick, deep purple or green above or below ground, with withered sheaths at the nodes about 12 mm (½ in) apart. Sometimes this rhizome shows a burnt-orange color below ground. Leaves 2 - 4 to a growth, to 30 cm (12 in) long, 5 - 7.5 cm (2-3 in) wide at its widest point, tapering upwards gradually to a withered point and downwards gradually to a round deep channeled narrow petiole 38 - 62 mm (1 ½ - 2 ½ in) long, 5 mm (3/16 in) wide, so that the leaf blade is symmetrical about a horizontal line through its widest point and down to where the petiole starts. Dark green with lighter green cross-banding, flexibly coriaceous, surface almost smooth and glossy, edges reddish. Petiole deep purple on the underside fading away with age to green matching the remaining of the leaf. The general color and cross-band-



S. 'Sudwalla Caves', large spoon shape and grape color at the base of new leaves

ing of this plant is reminiscent of that of *S. subspicata*.

Inflorescence a spike-like raceme.

The plant comes from the Sudwalla (or Sudwala) Caves in South Africa and it is a true "spoon shaped" plant, quite handsome on account of the wine-colored underside of the petiole. A plant so far undescribed.

This is a plant that is easy to grow in less than bright light. As with most sansevierias, it will grow better under stronger lighting.

Sansevieria suffruticosa var. *suffruticosa*

This is a sansevieria that is deemed to be a classic in all collections. A very distinct plant with a stem about 30 cm (1 ft) high covered by the leaf bases and stolons to 25 cm (10 in) long, 13 - 20 mm ($\frac{1}{2}$ - $\frac{3}{4}$ in) thick, ascending, covered by acute sheaths to 4 cm. (2 $\frac{1}{2}$ in) long which gradually merge into the lower leaves. Leaves 7-18 to a growth, 15-60cm ($\frac{1}{2}$ - 2ft) long, 1-2 cm ($\frac{1}{2}$ - $\frac{3}{4}$ in) thick, compressed cylindrica, irregularly pointing in all directions or distichous, sometimes occurring on the same stem, spreading, gradually tapering to a hard and spiny tip. The texture is rough throughout or smooth on the bottom and rough above. The leaves present a channel with acute edges, flattish at the bottom of the leaves and rounded towards the tip, from $\frac{1}{2}$ to $\frac{1}{3}$ of the length of the leaves. Dark green, cross-banded with grayish green when young and marked with continuous and interrupted longitudinal lines that become impressed when the leaves shrivel.

The inflorescence is a spike-like raceme to 35 cm (1 $\frac{1}{4}$ ft) tall. Flowers 2 - 5 to a cluster, tube 11 mm (7/16 in), lobes 13 - 15 mm ($\frac{1}{2}$ - 5/8 in).

The meaning of the epithet is sub-shrubby in Latin, referring, of course, to the "ground cover" appearance of this plant. It is quite common in the highlands of Kenya. The type, as stated by Brown, comes from the Nairobi River Falls, where there are large populations. However he did not use this plant for the description of the inflorescence.

The number of different populations in east Africa that resemble, or are,

Sansevieria suffruticosa is very large. This is, perhaps, the most perplexing group of all sansevierias both in the field as well as in cultivation.



Sansevieria suffruticosa, juvenile form shown for clarity-

Sansevieria suffruticosa var. *longituba*

This plant was described by the late H. Pfennig from Herford-Stedefreund, North-Rhein-Westphalia, Germany. His diagnosis indicates that the only difference between this variety and *Sansevieria suffruticosa* is the length of the flower tube. All other characters of this variety are the same. He collected the type at the Nairobi River Falls in Kenya.

If we look at Pfennig's tube/lobe graph^{1,2}, he shows two groups of flower

tube dimensions with 20 inflorescences represented, 13 of *S. suffruticosa* var. *suffruticosa* and 7 of *S. s. var. longituba*. He does not indicate whether the dots plotted are the longest, shortest or an average. One would expect them to be the average tube length of each single inflorescence, but he is not clear about that. However, more interesting would be to see the results of two inflorescences of the same clone and observe if there is a difference in the average dimensions of the flowers of each inflorescence. More so, the highest figure of the shorter flowers scales out 14 mm, while the lowest figure of the larger flowers scale out 18mm. This is a difference of approx. 25 %. It is my conclusion that this study does not really warrant a new variety, as I have seen hundreds of these plants in the field, and particularly in cultivation, whose various clones, and even one clone, have a variation much larger than the one indicated by Pfennig's study. The question still remains, what if an inflorescence grows from any of these clones, or from a new clone, that produces a tube whose location on Pfennig's graph is directly half way between the two groups? My conclusion then is that this variety should be deemed superfluous.

The *S. suffruticosa* / *gracilis* group is notorious for its wide range of variation.

REFERENCES;

1. Pfennig, H. 1981. Zur Systematik und Kultur einiger ostafrikanischer *Sansevieria*-Arten (Agavaceae) *Bot. Jahrb. Syst.* (102):176-178
2. . A translation into English of the article on 1. can be seen in **THE SANSEVIERIA JOURNAL** (5):30-31,1996

Sansevieria suffruticosa 'Frosty Spears'

This is a very distinct clone of *Sansevieria suffruticosa*. The dimensions appear to be much larger, but the main difference lies in the general lighter bluish overall color of the leaves. It is a sturdy plant that needs bright light and possibly tolerates low temperatures. The origin is unknown but reputed to be from East Africa.



Sansevieria suffruticosa 'Blue Clone', a large plant, reaching maturity

Sansevieria sulcata

A distinct plant regardless of whether or not one accepts its present identification in horticulture, as it does not quite fit N. E. Brown's description of this species. A stemless plant with a creeping rhizome to 2.5 cm (1 in) thick, burnt-orange in color, grayish when exposed to light. Leaves are solitary or in pairs, erect, firmly flexible, 45 - 60 cm (1½ - 2 ft) long, 1 - 1.5 cm (½ - ¾ in) thick. The lower part of the leaves are covered by 4-6 purplish sheaths which wither in time. The leaves have a rough texture, are dark green

in color, dull, and are marked with regularly spaced cross-banding of lighter green color. A round channel, somewhat deep, about one-half the width of the leaves runs from the base all the way to a withered tip. The edges of the channel are acute and of a green color. The leaf tapers gradually towards the tip and is round in cross-section, except for the ever-present channel. Overall, the leaves present a waviness, or kink on many of the leaves.

The inflorescence, which appears to be quite sterile both for self- and cross-pollination, is a spike-like raceme, quite short compared to the length of the leaves, which are 10 - 20 cm (4 - 8 in) long, with long flowers and an attractive purple peduncle.



Sansevieria sulcata as known in cultivation. This plant differs substantially from the original description.

The epithet means *channeled* in Latin. The description above corresponds to the plant we know in cultivation as *Sansevieria sulcata*.

As N. E. Brown indicates that the habitat for this plant in east South Africa, the Comoro Islands and Mayotte Island, the description should be likened to *Sansevieria canaliculata*.

If this plant is not grown with the proper conditions of bright light, which gives this plant a lighter color, the leaves will become so flexible that they will flop. Other than that, it is not a difficult plant to grow.

Sansevieria 'The Dyke'

A stemless plant, with a thick, grayish, rhizome to 25 mm (1 in) thick. Leaves lanceolate 1-2 to a growth, often solitary, to 60 cm (24 in) long, 8 in (3 ¼ in) wide, 5 mm (3/16 in) thick at the middle, stiff and with a texture of sole-leather, slightly rough both on the adaxial and abaxial side. Leaves strongly curved inward and backwards, sometimes tapering from the middle down into a narrow petiole, or sometimes narrowing down to embrace the newer leaf. Light yellowish green with darker green with , mostly narrow, cross-banding closely spaced, with very numerous longitudinal lines of the same darker green on front and back of the leaves. Edges reddish with withered borders detaching into fibers. The tips are cuspidate.

Inflorescence a spike-like raceme.

This unusual sansevieria comes from a limited area. It is found growing on the narrow series of ridges of the Great Dyke in Central Zimbabwe



Sansevieria thyrsiflora

A stemless plant with a creeping underground rootstock. Leaves 2 - 4 to a growth, erect, smooth, 15 - 45 cm ($\frac{1}{2}$ - 1 $\frac{1}{2}$ ft) long, 3.5 - 9 cm (1 - 3 in) wide, 3 mm ($\frac{1}{8}$ in) thick at the middle, lanceolate, top acute or obtuse and usually with a withered tip 1.5 cm ($\frac{5}{8}$ in) long, absent in some leaves, tapering below the middle into a petiole with a round channel. Dull, deep green, marked on both sides with closely spaced transverse bands of paler green,

almost disappearing with age. Margins reddish or sometimes whitish.

Inflorescence a spike-like raceme to 75 cm (2 $\frac{1}{2}$ ft) long, 2 - 6 to a cluster, tube 18 mm ($\frac{3}{4}$ in), lobes 18 mm ($\frac{3}{4}$ in).

The plant comes from Uitenhage, in woods by the Zwartkop River, South Africa.

The epithet means *inflorescence in the form of a thyse*, (branched inflorescence) contradicting the description.

There is a lot of controversy regarding this plant as, several have postulated for the position. The author believes the plant pictured best fits the description.



Sansevieria 'Tom Grumbley'

A sansevieria with stolons to 30 cm (8 in) long x 1 cm (3/8 in) thick, covered with triangular scales to 2 cm (3/4 in) long. The stolons arise from the bottom of the growths, which have no erect stem. Leaves 6-10 to a rosette, the lower ones curving outward, to 18 cm (7 1/4 in) long, compressed cylindric, 1 cm (3/8 in) wide, 13 mm (1/2 in) thick at the base. A round channel with acute edges runs from the base on up to almost half the tip of the leaves, wider at the base and narrowing to the tip. Edges of the channel reddish. Tip spiny. Leaves dull light green, cross-banded by narrow bands of darker green. Texture somewhat rough.

Inflorescence a spike-like raceme 12-20 (5-8 in) long, 2 - 4 flowers per cluster, flower tube 25 mm (1 in) long, lobes 10 mm (3/8 in) long.

Cultivated in the garden of the late Tom Grumbley in Malindi, Kenya and believed to have come from eastern Kenya, though without precise locality. This cultivar was described by L. E. Newton.



Sansevieria trifasciata

This is a plant that hardly needs any description as it is virtually known by anybody who likes house plants. Leaves 2-4 or more, dark green more or less regularly cross-banded with lighter green. The texture is smooth and waxy, sometimes shiny, erect but supple. Leaves grow to 1.50 m (5 ft) high and to 6 cm (2 ½ in) wide. Leaves narrow at the top to a soft subulate point, edges green but sometimes with a withered edge. The leaves narrow down and thicken to a concave channel at the bottom.

Inflorescence a spike-like raceme, 30 - 78 cm (1- 2 ½ ft) long, flower clusters of 3 - 8 flowers, spread apart. Tube 6-12 mm (¼ - ½ in) long, lobes 15 - 187mm (5/ 8- ¾ in) long.

This species has produced an amazing number of cultivated varieties



and sports, subject of another book by the author. The best known variety is *Sansevieria trifasciata* 'Laurentii', originally described as a botanical variety, which it is not, as the literature indicates that the specimen brought back was from a group of plants growing in cultivation and not of field provenance.

In old literature, at the beginning of last century this plant was called *Sansevieria zeylanica*, which obviously it is not.

This species is one of the easiest ones to grow.

This sansevieria comes from Southern Nigeria.

The epithet means *having three bands*.

Sansevieria 'Tugela River Valley'

A stemless plant with a creeping rhizome to 2 cm ($\frac{3}{4}$ in) thick, brownish in color when under ground, grayish when exposed to light. Leaves 1-3, perhaps more to a growth, to 25 cm (10 in) long, 7.5 - 9 cm (3- $3\frac{1}{2}$ in) wide at its widest point, tapering upwards to a withered point and downward more gradually to a mostly short round channeled petiole 13 mm ($\frac{1}{2}$ in) wide. Firmly coriaceous as sole-leather, rough on both sides, dull, not glossy, medium-dark green marked with blotches (not cross-banding) of lighter green. Edges of the leaves are reddish and the withered edges show detached fibers.

The underside of the petioles shows a purple tinge that is soon lost as the leaves age.

Inflorescence a spike-like raceme.

As its name indicates, this plant comes from the Tugela River Valley in South Africa.



This plant is easily distinguished from similar ones by the dull surface, sole-leather and rough texture and the mottling which is similar to that of *S. hyacinthoides*. Note that this plant is closer to the latter while *Sansevieria* 'Sudwalla Caves' is closer to *S. subspicata*.

Needs bright light to grow well.

Sansevieria volkensii

S. Volkensii Gürke *n. sp.*, with a very branched creeping rhizome; leaves semi-terete, channeled above, round below, gradually attenuate to a mucronate pungent apex, green, sometimes spotted-fasciated white scape, shorter than the leaves or of equal length, with a white perianth. 13 (Usb., Forests at Rombo- Holst n. 4080).- 15 (Crater edge of Jalla Lake – Volkens



Sansevieria volkensii, the correct name for *S. intermedia*, in habitat at Longobito, below the Doldoi escarpment, approx.. 60 Km north of Nanyuki, Kenya

at 1150m. – Volk. N, 1779).

The text above is the entire original description by Gürke translated from the Latin by the author.

Sansevieria volkensii is the valid name for the plant that has been called for a long time *S. intermedia*, the latter now a synonym.

There seems to be two sizes, perhaps clones: one smaller with several leaves and the other taller with few leaves.



Sansevieria volkensii in habitat at Longobito, below the Doldoi escarpment, ca.. 60 Km North of Nanyuki, Kenya. Possibly a larger clone with few leaves.

Sansevieria zeylanica

Stemless, with a creeping rootstock to 12 mm ($\frac{1}{2}$ in) in diameter. Leaves 10-16 or more, 60 cm (24 in) long, 3 cm ($1\frac{1}{4}$ in) wide, curved backwards. Leaves, slightly folded inward, dark green marked by regular cross-banding of lighter grayish-green, a pattern reminiscent of that of *S. trifasciata*. Leaves somewhat stiff and quite flexible, strap-like, narrowing to the tip into a soft subulate point. Edges of the leaves green, sometimes with a very thin whitish border, only evident at closer range. Leaves narrow only slightly down to the bottom, thus presenting no petiole. The adaxial side of the leaves present very few dark longitudinal lines, long but interrupted. The abaxial side presents a shallow keel and is marked by several longitudinal impressed and continuous lines, regularly spaced.

The flowering of this species, which appears to be quite infrequent in cultivation, is in the form of a spike-like raceme.



This plant comes from India, not Ceylon, the former name of Sri-Lanka.

There has been some controversy as to the identity of this sansevieria. A plant was brought from Sri-Lanka in order to be described by N.E. Brown. However, the plants growing in that country are *Sansevieria roxburghiana* instead. Whether *S. zeylanica* exists or not in Sri-Lanka has yet to be determined.

The epithet means *ceylonese* in Latin.

Not a difficult plant to grow requiring from semi-shade to brighter lighting.

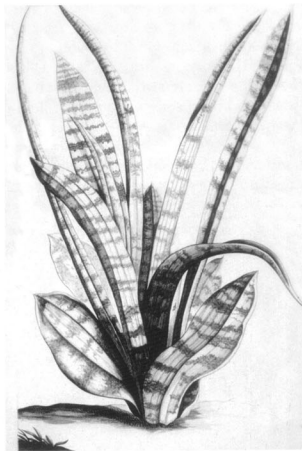


Illustration of *Sansevieria zeylanica* (L.) Willd. in Caspar Commelin, *Horti Medici Amstelodamensis Rariorum Plantarum* 2: tab. 21 (1701).

Sansevieria Hybrids

Sansevieria hybrid 'Blue'

This is one of the USDA hybrids that may have survived due to the attractiveness of its foliage. The name accounts for the bluish color of the young leaves. Leaves 4 - 6 to a growth, to 2 cm ($\frac{3}{4}$ in) wide, 2.5 cm (1 in) thick, 50 cm (24 in) long, deeply channeled, to the point where they look as if they are thick flat leaves that have curved to form a channel. Some leaves, particularly the younger ones, are totally flat. Channel round, running mostly to the withered tip. Edges of the channel reddish. Very light blue-green, color conspicuously marked with dark green cross-banding of varying thickness, further marked with several dark green continuous very thin lines all around. The light blue-green color turns yellowish and darkens with age, which can be seen on the older, outer leaves. Surface smooth. Leaves appear to have a distichous arrangement.

The parents of these plant are unknown. The plant was rescued from the USDA fiber collection by James McConville of Chicago. A beautiful plant, though it appears not to grow fast for a plant expected to have hybrid vigor.



Sansevieria trifasciata x *deserti* 'Fla. H-13'

A stemless sansevieria with a creeping rhizome to 2.5 cm (1 in) thick or more, burnt-orange in color. Leaves 3-5 to a growth, not counting a few short acuminate leaves at the bottom, to 2.10 m (7 ft) tall or more, 15 mm (5/8 in) wide, 30 mm (1 1/8 in) from edge of leaf to back at the base, erect, straight or recurving, rigid but flexible. A deep round channel runs the length of the leaf to almost the soft, green or withered tip, to 20 mm (3/4 in) long. The edges of the channel are acute, with a very thin reddish color, many times withered. The back of leaves are round. Dull dark green color with faint cross-banding of lighter green, marked with a large number of continuous and interrupted longitudinal lines, the continuous one sometimes impressed running from the base to the tip of the leaves. New leaves have an ochre colored tinge, especially at the base. Many leaves show an overall "kink" or waviness, sideways, along the leaf length. This fact seems to be present in hybrids and appears to be caused by the slightly different rate of growth of the layers in the plant.

The inflorescence is a spike-like raceme. The flowers appear to be self-sterile.

This plant is the F1 hybrid selected by the hybridization program of USDA (United States Department of Agriculture) in the fifties to find the most appropriate sansevieria crossing for the purpose of producing fiber for cordage. This particular hybrid was selected among several others on account of the fiber production yield, excellent re-growth after harvesting and tolerance to low temperatures. Sansevieria fibers resist salt-water and are therefore ideal for ropes needed for marine use.

However, soon came the artificial fibers like rayon and nylon and the entire program was abandoned.

This plant had been originally designated as 'H51-13' in the experimental trials. The name has transcended as indicated above.

This is a fast and easy grower, somewhat tolerant of lower temperatures, that will grow better in bright light.



Sansevieria 'Fla. H-13' growing more than 1.60 m (6 ft) in the author's garden. Note kink of leaf on the inset.

Sansevieria trifasciata x *deserti* ' Fla. H54-3'

Stemless, with a creeping rhizome, much shorter than *Sansevieria* 'Fla. H-13. Leaves appear to be solitary or two to a growth, with thick, wider leaves. They have a conspicuous whitish blotching and lack the numerous short lines present on the latter. Some of the leaves show waxy edges. There is not much information on this hybrid other than it was one of the crossings developed for fiber and was kept for reference, as this was not the one selected for that purpose.

Again, as the preceding one, this plant is very easy to grow.



Sansevieria 'Midnight Fountain'

This sansevieria is attributed to the USDA group on fiber research. It is assumed that it has survived because of its attractiveness. Leaves 8-20 or more in a rosette, 2 cm ($\frac{3}{4}$ in) at the base, 60 cm (24 in) long, thick, with a channel that runs almost to the tip and as wide as the leaf, becoming narrower as it approaches the tip. Leaves are rigid but flexible, curve out and taper gradually to a withered tip. Dark deep green color, smooth and waxy texture. Edges of the channel reddish. The leaves have faint cross-banding of lighter green color in young leaves but it soon disappears on mature leaves. Marked with several longitudinal blackish lines that are more prominent on the adaxial side and the channel, but faintly visible on the abaxial side.

Inflorescence a spike-like raceme.

This F-1 crossing bears the number USDA 19328. The parents are not known. Easy to grow as it seems to have hybrid vigor.

A very attractive plant on account of the curving of the leaves, the waxy texture and the rich green color marked with dark lines.



Sansevieria 'Doris Pfennig'

This crossing of *Sansevieria pinguicula* x *phillipsiae* was made by the late Horst Pfennig of Herford-Stedefreund, Germany. This sansevieria is stemless with rhizomes as well and stolons, that are strong reminders of its parent plants. The leaves are 4 - 8 to a growth, 25 - 30 cm (10 - 12 in) long, 12 - 19 mm ($\frac{1}{2}$ - $\frac{3}{4}$ in) wide at the base, 15-20 mm ($\frac{5}{8}$ - $\frac{3}{4}$ in) thick. Leaves grow in all directions, are quite rigid and curve back, sometimes twisting sideways. Dark green, smooth with waxy texture. Leaves narrow gradually up to a spiny withered tip to more than 25 mm (1 in) long. A deep acute channel on the adaxial side of the leaf runs all the way to the tip, gradually narrowing to about $\frac{3}{4}$ the width of the leaf. The channel has a very thin reddish edge, which is bordered by more prominent withered fibers that contrast beautifully with the dark green color of the leaves. There is typically one impressed continuous longitudinal line on either side of the leaf.

The name of this plant is dedicated to the plant creator's wife.



This crossing is freely flowering.

Pfennig writes ¹ that he was trying to self-pollinate a specimen of *S. pinguicula* flowering in his greenhouse without any luck, so he used the pollen of *S. phillipsiae* instead, that happened to be in bloom at the same time and was quite successful. The plant described is the result of his crossing.

NOTE: 1. Pfennig, Horst. 1980 *Sansevieria pinguicula*, Bally. Kakteen u. andere Sukkulente (31): 206-207

Sansevieria 'Tarzana'

Plant with a short stem, 10 cm (4 in) in height, covered by the leaf bases, with a creeping rhizome. Leaves 5 - 10, 30cm (12 in) long, recurved, round in cross-section, 25 mm (1 in) wide, 27 mm (1 1/8 in) thick at the base, gradually tapering towards a flexible tip to 15 mm (5/8 in) long, dark bluish-green marked with gray-green cross-banding, not quite disappearing with age, with 4-8 dark-green lines, which turn into grooves when the plant dries. Channel round, as wide or wider than the leaf, to 1/10 the length of the leaf, rapidly tapering to the tip of the leaf. The channel edge is acute, with a thin reddish line.

The inflorescence is a capitate raceme on a stem 10 cm (4 in) long. The flowers have a brownish color.

This is a crossing of *Sansevieria fischeri* x *S. cylindrica* var. *cylindrica* made by the author. The pollen of the latter, which has a spike-like inflorescence, was used on the former, which has a capitate inflorescence. This plant grew from seed of the only flower that came to fruition as a result of the pollination process.

The name of this plant comes from the neighborhood of Tarzana, California where the author used to live. The section Tarzana, commemorating Tarzan, is where Edgar Rice Burroughs used to live.

As happens with all hybrids, this is a fast growing sansevieria and an easy one to grow, as well.



Sansevieria 'Tarzana' a crossing by the author of *Sansevieria fischeri* with *S. cylindrica* var. *cylindrica*. The result has been a plant more colorful than the former.

Cultivation

Generally speaking sansevierias are not difficult to cultivate. Virtually any type of soil is adequate for the majority of the species as long as the pH values are not extreme and that the temperature and watering regime can be controlled. They will thrive in even the densest of soils, again with the proper watering and temperature. Clayey soils seem to add color and strength, though no controlled tests have been made to ascertain this.

Sansevierias do not need much water to grow. The general rule is that even if the soil is dry on the top of the pot, dig with your finger, or a pencil, 2 cm (or 1 in) below the top of the soil. If you feel with your finger that the soil is moist there *do not water*. Note that even if the soil appears dry under, there is still lots of humidity under the crown of the plant. This is all that is needed, *unless* the plant is actively growing and you can see a difference in growth every day. In this case water freely. The thing to remember is that sansevierias are relatively slow growers.

No sansevieria can tolerate low temperatures and "wet feet", so then when temperatures go under 7 °C (45 °F), the potting mix should be kept very dry. This temperature can go much lower, provided the lighting conditions are quite bright. The higher the lighting conditions, the lower the temperature the can be tolerated by these plants. Please note that we are talking about tolerating, this not being an ideal but a survival situation. In the author's front garden *S. t.* 'Golden Hahnii' has endured temperature very close to freezing in the southwestern Florida winter. After the ordeal, it did not look as a show plant, but the plant survived.

A porous mix is always recommended however, the more porous the mix, the more exacting the watering has to be to avoid severe drying in between.

Some people keep their plants totally dry in the winter, at the same time giving them as much light as can be provided at the geographical latitude where they live. When higher temperature and longer days resume, they start watering again. So, what happens to the roots? The fine roots, no

doubt die, but the thicker roots, most of the times orange in color, do not, as they are succulent. Indeed, plants can be shipped this way, with their long thick roots bare. Upon receipt the plants should be planted in *barely moist* soil (the next thing to dry) and watered only after one week or so, depending on the conditions. After, at least, a couple of weeks, small roots will grow off the succulent leaves.

It seems among collectors that the longer their sansevieria leaves grow, the happier they are, sort of like a race to see who can grown longer leaves, boasting as to who has a certain sansevieria with the tallest leaves. The fact is that many of these leaves turn out to be etiolated (leggy) due to lack of proper lighting. Though we know this can happen in nature also, as in the case of a sansevieria growing under heavy shading, the fact is that a well grown plant shows it by its looks. An etiolated plant will have a green color darker than usual, a smoother texture and an overall lack of cross-banding and, of course, will have a longer than normal length of leaves. To the unaware grower, this may seem a feat: it is not. No etiolated plant looks attractive to the trained eye of a collector with some experience.

The way botanical gardens located in the higher latitudes handle sansevierias and surely many other genera as well, is to halt the growth of the plant when the light conditions are unfavorable. This is done when winter or late autumn comes, at which time the watering is stopped. The plants lack light only, since the greenhouses are heated. When longer days arrive, bringing longer lighting periods with them, watering is resumed and sansevierias pick up from where they left, make up for the time lost and grow with renewed vigor. This is not all: most of the sansevierias will reward us with an inflorescence after this rest, and since they need liberal watering to vigorously grow, excellent conditions are thus provided. Further, in nature, many sansevierias, which have plenty of light year-round, have two periods of drought between the rains as well.

In the above process of letting a pot go dry, most of the sansevierias will start to shrink, indeed along the continuous longitudinal lines so often indicated in the descriptions. As mentioned above, when the plant is watered again, the plant, as an accordion, will swell again to its original shape.

I have been always amazed as to how people who are not all that familiar with sansevierias, including succulent collectors, are surprised and

look amazed when they see juvenile forms of sansevierias growing along their mature counterparts. Somewhat in disbelief, they ask a couple of times if they are the same plant.

If you want any one of your plants, for example *Sansevieria fischeri* or *Sansevieria stuckyi*, to grow large, all you have to do is, as it fills the pot in which it is growing, re-pot it to a larger pot. If you wish to remove some growth, remove the older - and smaller, juvenile- plants. You will then see, how each new growth is going to grow larger and larger and gradually leave the juvenile stage. On the other hand, those who want to keep a sansevieria small, all they have to do is keep dividing and dividing it. This will ensure an eternal juvenile stage for the plants.

Potting mixes vary according to where you live and according to the watering regime. In my own garden, I have sansevierias that are covered by a shed to protect them from the rain, but most of them are in the open. It can rain every day but fortunately the rains are relegated to the summer season. Incredibly enough, the very porous, and sterile, sand feels barely moist in less than one hour after raining. Though this type of medium is ideal for many sansevierias, the highly variegated ones, do not do well in it. So the need of a potting mix for variegated plants is established. One mix, that was recommended to me and seems to work very well is 1 part commercial potting mix with "coir" (coconut fibers), 1 part perlite, 1 part calcined clay and 1 part $\frac{1}{2}$ in thick lava rock (the type used by orchid growers). If you live in a drier area, or you have your plants in a greenhouse, you should use 2 parts of the commercial mix with "coir". If calcined clay is not stocked by the agricultural supplier in your area, he should be able to get it for you. Using calcined clay not only provides good drainage but seems to chemically interact with the plant. This is only given for reference and if you have a mix that works well for you, there is no reason to change it. I changed my mix, due mainly to my inability to properly grow *Sansevieria eilensis*, unquestionably the most "difficult" one to grow. It seems to do well in this mix. Also, another precaution that the collector may want to take is to keep the potting mix "clean". This is done by watering with water only, two times in a row and fertilizing the third time the plant needs water or, of course, fertilizing less often. One thing to bear in mind is to water very well every time you water. The practice of watering very little produces build up of salts in the mix

which is very detrimental to the roots of the plants, particularly those requiring a more exacting treatment.

Interestingly enough, sansevierias can be grown in water or hydroponics, always with the right temperature and lighting. Dale Speirs in Canada has shown that *Sansevieria parva* can be grown in an aquarium. Dave and Kris Turner, Las Vegas, Nevada are growing the most "difficult" *Sansevieria eilensis* in hydroponics. A quick look at the picture below will prove the startling results obtained by this method of growing.



Note excellent specimens of *Sansevieria eilensis* with leaves over 12 cm. (5 in) growing in hydroponics at Turner Greenhouse, Las Vegas, Nevada. Photo D.Tuner.

Collectors in warmer areas may notice when receiving plants from other collectors living in higher latitudes, that these plants will start growing quite vigorously. The author has brought back to Florida, plants given to him by botanical gardens in Europe and has experienced the same process. This can only be explained by considering that the plants were used to a certain cycle of light and temperature and when exposed to an unusually intense lighting and perhaps warmth, they take advantage of the circumstance and grow lusciously. This state of affairs later stabilizes and the plant "recognizes" when winter arrives, even in the warm Florida winter. The opposite,

taking plants to higher latitudes, is true as well, the plant will adapt and 'recognize' when summer arrives.

When sansevierias are not subject to the correct watering program, the grower will notice "corky" spots developing on the face of the leaves. The more disproportioned the watering practice, the larger the number of "corky" spots that will appear. This can be due to over-watering as well as under-watering. Once the spots have appeared they are there to stay. They do not seem to be any disease, so no special corrective measure need to be taken. If over-watering cannot be avoided, the only solution will be to have a more porous mix.

All of us who grow sansevierias have noticed on some of the plants how the rhizomes of new offsets will go down the pot before they rise up to produce the growth. Typically, more or less *all* rhizomes go down before they produce a growth. This clearly indicates that the new growth is trying to secure humidity for the new, tender offset. If the potting mix at that lower level is soaking, the new growth will probably rot. This has in fact happened to the author with sansevierias in pots with "regular" succulent mix that were subject to the daily Florida rains.

We have all heard that sansevierias thrive on neglect and that they "like" to be crowded in the pot. Perhaps if, instead of repeating this again and again, we stop to think a little and we care to remove a plant out of an overcrowded pot and look at what has happened, we could learn something. Indeed, the plant would look happy, but what we thought was neglect, is actually a better way to raise these plants. Although this is not true for all sansevierias, when we look into the pot we are going to see it crowded with rhizomes, the organic material is all but gone and the remaining mix consists mostly of inorganic material, like perlite, pumice, etc. I have observed in my own propagating tray, consisting only of loose inorganic material, when, out of neglect, I left cuttings that had offset for a long time, that their root system was spectacular. So this should give us some thought.

As far as lighting is concerned, sansevierias enjoy as much light as they can be given without burning. We have heard the somewhat debatable rule: the stiffer the leaf, the more light a sansevieria *needs*. Needs, therein lies the error. We collectors like our plants to grow as fast and as big as possible. In order to do that, we should give the plants *as much light* as they can

take without burning. Again, we should do this *gradually*, and this is an art. A well known sansevieria investigator and collector claimed his plants burnt upon exposure to the sun in northern Germany. This author grows his sansevierias, including some variegates, in full sun in southwestern Florida.

Sansevierias travel quite well as long as they are shipped bare-rooted. They do not appear to "loose much time" by the drying of the rhizome and root quickly regaining their growth rate. Sending sansevierias with some mix around the roots in a thin plastic bag to keep the moisture, should be restricted to short trips and then only during warm weather. It is very important to use a thin bag, like the ones used in the market to bag vegetables. These bags do not let the water out but let oxygen through, so you may want to recycle the thin bags you bring from the market. Very thin sandwich bags are adequate as well. Another way is to wash off well any mix remaining in the soil and while roots are still wet wrap them in dry tissue paper and place the ball thus formed in the plastic bag mentioned, tying the top of the bag with a rubber band. The wet roots and the dry towels will make an overall combination of a *barely moist* medium that will support life in the roots of a plant traveling in total darkness. White tissue or towel paper has been treated with chlorine to whiten it, so they are almost sterile. Keeping sansevieria roots slightly moist is also recommended when the plant has a budding offset to protect. In all though, it is preferable to ship sansevierias bare-rooted.

As long as the *soil* does not freeze *and* sansevierias are planted in an area where there are virtually no winter rains, they will do well outdoors. Some areas of southern Florida are subject to freezing. Sansevierias cannot take freezing so they die. However, the rhizomes, under the soil do not freeze and new leaves will grow when warmer weather comes along.

It sometimes happen that sansevierias lose all their roots on the rhizome, which becomes dark from fungus attack. One method to correct this, that has worked for the author, is to remove the plant from the pot, wash the rhizome, immerse it in 20 % household bleach (sodium hypochlorite) - 1 part bleach, 4 parts water - for 10 minutes and then let it dry for at least 24 hours. This is followed by immersion of the rhizome in 1 part of a liquid rooting compound to 100 parts water for 24 hours. The plant is then planted as usual. The roots that follow are short of spectacular.

Sansevieria eilensis showing remarkable root growth after treatment of the rhizome with bleach and later with diluted rooting hormone.



Sansevierias, like any other plants are subject to diseases. Many commercial rare plant growers claim that they have never seen any pests on a sansevieria. There is no reason not to believe this. However, these growers are not growing sansevierias only. They also have an array of other succulent plants that are more susceptible to disease. In treating them, without realizing it, or without being willing to admit it, they treat sansevierias as well, thus giving them a preventive treatment.

The most common insects attacking sansevierias are scale, thrips and mealy bugs, all of which can be treated with the more modern insecticides offered in the market. There are excellent water soluble powders and pellets available that do not damage the roots. Beware of insecticides that contain oils to emulsify the chemicals. These are very detrimental to the roots of sansevierias and will severely impair the growth of the plants.

Sometimes the tip of a rhizome makes a bulge on the side of the pot and finally cracks it open to come out in the light and produce new growth. No doubt, we need to discard the pot. More common yet is a rhizome pushing its way out off a drainage hole. This growth, will have no roots if severed at the face of the pot. So we destroy the pot and save the new growth? No need to do that. We just make two cuts upwards at 45 degrees off the top corners of the square drainage hole and bend outward the resulting flap. We then carefully pull the rhizome out of the larger opening thus created, so that we can make the cut beyond the rooted portion. This will ensure that we have a rhizome with roots. After cutting off the rhizome, bend the flap back down and we now have our entire pot back, save for two inconspicuous incisions.

Propagation

Some aspects of propagation overlap with those of cultivation treated in the previous chapter.

Sansevierias can be propagated in four ways: a) by **seed**, b) by **division**, d) by **leaf-cutting** and d) by **micro-propagation** (tissue culture).

Seed – This is the least preferred method of propagation, since both flowering and fruiting of sansevierias is erratic, not guaranteed and the yield of seeds of an infructescence is generally very small. However, it is within the reach of the collector and it should, no doubt, be tried. Further, this is the easiest way to produce hybrids by cross-pollination. Seeds are always green and turn orange at maturity. It is best to clean and dry the seeds and let them rest for a couple of weeks, at least, before planting them. Germination varies, on an average, between two to three weeks, during which time the seeds should be kept moist and in the light. If a warm environment cannot be provided, fertile seeds can be stored, their flesh removed, until late spring or summer as their viability appears to be reasonably long.

Pollination and Cross-pollination – So how do we get seeds? Once, the flowers of a sansevieria open, one notices two things: the flowers are erect and there is a distinct pungent fragrance. This always happens in the evening and through the night up to the following morning when the flowers droop and lose their fragrance. Many flowers will regain their erect shape and aroma on the following evening as new flowers also open. This process varies with the species as some of them will open all the flowers present on the stalk almost simultaneously, while others open them gradually from the bottom on up. The time also varies considerably with the species, some of them beginning to open early in the early evening when there is still light, others as late as 10:00 pm. The night opening of the flowers suggests that most of them are pollinated by moths. Pollinators for others, like those having a capitate-raceme inflorescence near ground level, have been postulated to be beetles. So, in order to artificially pollinate sansevierias, one has to do it at night.

As soon as the inflorescence shows the signs of receptiveness mentioned above, one can proceed with the pollination process. Many growers use brushes. This is fine, however a brush must be dipped in alcohol and dried before it can be used again with a different pollen, plus brushes make it difficult to store pollen as explained below. I use a Q-tip, gently rubbing the tip with a rotating motion on the stamens of as many open flowers as possible. I sometimes aid myself with a loupe to see that I have actually picked some pollen on the Q-tip. Other times the grains seem to be so big that the collected pollen can be seen with the bare eyes. The tip, in this case, turns yellow from having picked up so much pollen. Then I, not so gently, touch the stigma of each flower with the pollen laden tip, several times. This entire procedure I repeat every night for three consecutive nights, discarding the Q-tip after use each time. Sometimes, going just once through this protocol is enough. However, it takes such a short time to do it, that I find it well worth it to repeat it several times. For this purpose, the plant may be brought indoors every night. The plant should be properly watered as well, so that the inflorescence does not suffer.

It is not very unusual to find some *sansevierias* whose flowers do not have any pollen at all.

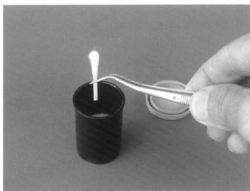
Crossings are, in the way explained above, are done even more easily, as *sansevierias* seem more prone to receive pollen from other species than from their own. However, it is my observation, that if left alone without human intervention, *sansevierias* will self pollinate rather than hybridize. This is what seems to happen in the field with night pollinators.

Pollen Storage – The technique to store pollen is quite easy and should be tried by the reader. The way to do it, is to pick up pollen with a Q-tip, cut the stick a little further than the middle and place the stick with the head up in a little container with salt. The sealed containers are then placed in the refrigerator. For this purpose, it is ideal to use an empty container of a roll of 35 mm photographic film. Place kitchen salt to about $\frac{1}{4}$ of the height of the container and “plant” the Q-tips in the bed of salt. You may want to use a pair of tweezers to do it, as you do not want to touch the pollen laden tip. You can put two or three tips this way in one case and use each one of them on different *sansevierias*. Certainly, you would like to restrict yourself to one species per container, which you may want to identify on the outside.

Salt is ideal to keep the pollen dry, without drying it out as silica-gel would. This is the way I kept the pollen of *Sansevieria cylindrica* var. *cylindrica* for ten days waiting for the flowers of *Sansevieria fischeri* to become receptive. The result was, of course, *Sansevieria* 'Tarzana'.

I do not know how long sansevieria pollen can be kept this way in the refrigerator, but it is worth trying and see, as it must surely vary with the species.

A Q-tip laden with pollen is placed, with the help of tweezers, into a discarded 35 mm. film container, partially filled with salt,



Division – This is the preferred method when the amount of material available is considerable enough. The rhizome should be cut half-way between both plants. It is important to leave, at least, one inch of the rhizome for the new plant, so that it can properly grow, without substantially setting it back. With plants that have stolons, the growth of the leaves will occur before “stilt” roots are produced. It is *very* important to wait until the roots have attained a length of more than 3 cm (1 ¼ in) to sever the stolon and separate the new plant. In this case, it seems that one can cut the stolon at any point without weakening the growth of the new plant.

I mentioned in the chapter on General Considerations that a growth that has flowered will irremediably produce new offsets. Often, a growth may not flower but will produce new rhizomes, or stolons, and subsequent growths as well. Again, one can sever these growths and the original plant will produce new offsets.

Leaf Cutting – All sansevierias, with only the exception of variegated ones, can be propagated by leaf cuttings. This is the preferred method of propagation for this genus. As the plant from which it derives, a leaf cutting will require more or less minimum light for propagation, However, all leaf cut-

tings benefit from bright light. The procedure is quite simple and most collectors do not need any explanation. A leaf is cut, preferably perpendicular to the direction of growth, and left out in bright light, but not sun, for a time that varies with the thickness of the leaf. It is best to leave thin leaves for not more than a couple of days, while thick leaves will be ready in three to four days. Furthermore, the latter will benefit from a longer time without planting. The leaf thus forms a callus of undifferentiated tissue at the cut which, when planted, will grow further callus and produce roots and then leaves.

Polarity is very important in *Sansevieria*. Leaf cuttings must be planted in the correct direction: the end that was originally closer to the bottom of the leaf is the one that should go into the propagating mix. Tests made and published in a Swiss study corroborate this.

Leaf cuttings benefit from rooting hormone and fungicide applications. I found the former not entirely necessary, though I would not discourage its use. The hormones used are the natural auxin NAA (naphthalene acetic acid) and the man-made auxin IBA (indolebutyric acid). The latter has stronger action than the former, but it appears that a combination of both produces a more effective growth regulator. Beware of rooting powders that

claim to have hormones. They do have hormones, but the strength is not quite anywhere near to what is needed and their only benefit is the fungicide present in them. However, should you get a concentrated growth regulator, note that *sansevierias* are herbaceous plants and as such will require the *more diluted* form of the hormone, or you will burn the cut.



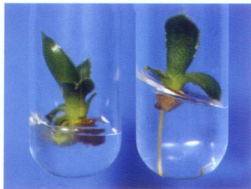
A 15 cm (6 in) sturdy basal cutting of *Sansevieria* 'Malawi Bat' producing a strong offset. Note the thickness of the rhizome.

The longer the leaf-cutting, the stronger and healthier the offset is going to be. If one plants an entire leaf, it will offset the largest plants. If one removes the offset, or offsets, and leaves the leaf-cutting in the propagating mix one can expect it to produce more offsets, sort of, like a little factory of new plants.

One interesting point to note is that a leaf cutting is a living portion of a sansevieria. As such, it has stomata that open in the evening. If this happens, it is obvious that one can spray hormones and even fertilizer on the leaves and this should be absorbed by the leaf. Further, the portion below the mix, which we know as a fact, loses the green color during the rooting/off-setting period, should also be able to absorb nourishment. However, the requirements of such a dismally slow growing process should be quite minimal. Perhaps the only requirement of a leaf cutting is the first hormonal treatment by dipping. Some collectors, spray their cuttings with hormones every ten days. No data is available about the effectiveness of this treatment but it seem worth the try.

Micropropagation (Tissue Culture) – This type of propagation, with its phenomenal results, can produce an incredible number of plants in a short time. However, if a sansevieria is slow in regular cultivation, according to the experience of the author, it will also be relatively slow in propagating by this method. The production of plants that have the same size, is one of the advantages of this system but commercial growers, with their proficiency and experience, have nothing to envy regarding uniformity of propagation of plants grown in-vitro.

So, this type of propagation does not appear to be practical for the limited market of sansevieria, including the variegated forms.



Micropropagation of *Sansevieria patens* by the author. Stage III, producing leaves.

SANSEVIERIA DISPLAY

Being as sculptural as they are, there should not be any problem in displaying sansevierias both in containers and in the landscape.

For individual or a small number of plants, even a regular clay pot will provide a pleasant visual support. More elaborate, artistic containers may be used as long as they do not compete with the plant as main attraction. Keeping it unobtrusive and simple should be the rule.

Sansevieria can even be tried as bonsai specimens. For this purpose, plants can be grown from seed or from offsets or cuttings. In both cases they should be treated as bonsai specimens in small pots with restrained root growth. Angel Ramos of Oahu, Hawaii, has produced exemplary results with



Sansevieria 'Horiwood' grown from seed and made grown into a bonsai by Angel Ramos, Oahu, Hawaii. Photo: A. Ramos

his method of growing sansevierias in small containers.

Objects other than pots can be used to great advantage. Rocks, in particular lava rocks due to their porosity, coconut shells and even a full coconut with its fiber-rich pulp may be used, as demonstrated on the picture by Ed and Alva Eby, at the time living in Oahu, Hawaii.



Sansevieria parva growing in a coconut in Oahu, Hawaii by Ed and Alva Eby. Photo: E. Eby.

A good way of staging sansevierias in a decorative constrainer or a regular pot is to fill the pot so that the level of mix is *higher* in the center than that at the rim of the pot, forming a mound. The soil is then covered with a layer of crushed rock. Should the space permit, a few small rocks may be artistically placed here and there, for accent, on the crushed rocks.

Yet another container that may be used is the more expensive porcelain pot or ferner. This may be done temporarily for, perhaps only a few weeks. Otherwise, the root system should be inspected often, especially during the growing season to prevent new rhizomes from breaking the fine container. The porcelain container will in most cases lack drainage

holes, so either an inside liner with drainage holes should be provided or the plant, which in all probability will be indoors, watered sparingly with distilled water.



A juvenile form of *Sansevieria canaliculata* growing in a Nippon porcelain ferner. Rhizomes should be carefully monitored to avoid breakage of the pot, unless a metal liner is provided.

The use of sansevieria in the landscape has hardly been tried. to the best of my knowledge. The first one to do it, more than 30 years ago, was the distinguished landscape architect Roberto Burle-Marx, in Brazil, where he used relatively large number of species and variegated sansevierias to design his gardens to great advantage. His use of of sansevieria for this purpose has been exemplary. Presently Neves Terriani Laera is using them advantageously in landscape plantings in that country.



A large group of *Sansevieria stuckyi* growing along agaves and aloes in the garden of Roberto Burle-Marx in Rio de Janeiro, Brazil. Photo: Mike Phillips



A group of *Sansevieria masoniana* (center) and *S. trifasciata* 'Bantel's Sensation' (left) and *S. t.* 'Moonshine' (center, front) with pink *Cryptanthus* and purple *Tradescantia* in the author's garden in Naples, Florida.

Key to the Species

01a. Round Leaves [leaf thickness greater than leaf width]

02a. distichous

03a. without a channel

04a. leaves erect

..... *S. cylindrica* var. *cylindrica*

04b. leaves spreading

..... *S. cylindrica* var. *patula*

03b. leaves without a channel

05a. without a stem

06a. not cross-banded..... *S. burdettii*

06b. cross-banded

07a. with < 10 longitudinal lines.

8a. < 30 cm long

..... *S. patens*

8b. > 30 cm long

..... *S. 'Fla H-13'*

07b. with > 10 longitudinal lines

09a. < 30 cm long

..... *S. 'Koko'*

09b. > 30 cm long

10a. < 2.5 cm. thick

11a. lvs. spread out

..... *S. deserti*

11b. lvs. ascending

..... *S. rhodesiana*

10b. > 2.5 cm

12a. short stem < 18 cm

13a. lvs. < 35 cm long

..... *S. pinguicula*

13b. lvs. > 35 cm long

..... *S. ehrenbergii*

14a. lvs. > 2.5 cm thick

..... *S. rorida*

14b. lvs. < 2.5 cm thick

..... *S. sordida*

15a. lvs. < 45 cm long

15b. lvs. > 45 cm long

12b. stem > 45 cm

- 16a. lvs ascending *S. robusta*
 16b. lvs. spread out

17a. stem < 60 cm.

- 17a. stem < 60 cm. *S. perrotii*
 17b. stem > 60 cm *S. powellii*

02b. non-distichous

18a. without a stem

19a 1-3 leaves

- 20a. not cross-banded *S. canaliculata*

20b. cross-banded

21a. leaves not erect

- 21a. leaves not erect *S. caulescens*

21b. leaves upright

22a. shallow channel

23a. single leaf

24a. rough texture, lvs. with

- constant cross-section *S. fischeri*

24b. smooth, thicker cross-

section at base

- *S. 'Tarzana'*
 *S. stuckyi*

23b. 2 leaves

22b. deep channel

25a. leaves entirely upright

- 26a. < 1 cm thick *S. sulcata*

26b. > 1 cm thick

27a. w/ narrow longit. lines

- *S. sinus-siniorum*

27a. w/ thick longit. lines

- *S. 'Malawi Bat'*

25b. leaves bent backwards

28a. leaves < 3 cm wide

- 29a. distinctly cross-banded *S. hallii* 'Lundi'

- 29b. obscurely cross-banded *S. hallii* 'Blue Bat'

- 28b. leaves > 2cm. wide
 30a. color gray-green *S. hallii*
 30b. color pink *S. hallii* 'Pink Bat'
- 19b. 4 or more leaves
 31a. leaves upright
 32a. leaves < 1 cm thick *S. humbertiana*
 32b. leaves > 1 cm thick *S. volkensii*
 31b. leaves pointing in all directions
 33a. with cross-banding
 34a. leaves partially channeled *S. hargisiana*
 34b. leaves fully channeled *S. downsi*
 33b. without cross-banding *S. pinguicula* x *phillipsiae*
- 18b. with a stem, or a short stem
 35a. with stolons *S. 'Kitonga'*
 35b. without stolons
 36a. leaves cross-section circular
 37a. leaves pointing in all directions
 38a. leaves < 3 cm long *S. 'Minnie'*
 38b. leaves > 3 cm long
 39a. leaves < 18 cm long *S. ballyi*
 39b. leaves > 20 cm long *S. grandis*
 37b. leaves arranged in whorls of 5 *S. francisii*
 36b. leaves cross-section elliptical
 40a. leaves < 16 mm thick
 41a. < 10 mm thick *S. 'Tom Grumbley'*
 41b. > 12 mm thick
 42a. mostly distichous *S. phillipsiae*
 42b. sometimes distichous or spiro-distichous ... *S. suffruticosa*
 40b. leaves > 16 m. thick *S. bella*

01b. Flat Leaves [leaf width greater than leaf thickness]

- 41a. with a stem
- 42a. stem < 12.5 cm
- 43a. leaves distinctly cross-banded *S. parva*
- 43b. leaves obscurely cross-banded *S. dooneri*
- 42b. Stem > 60 cm.
- 44a. leaves < 16 mm wide - brittle *S. bagamoyensis*
- 44b. leaves > 25 mm wide - flexible *S. arborescens*
- 41b. without a stem
- 45a. with a conspicuous petiole
- 46a. leaves rigid *S. 'Tugela River Valley'*
- 46b. leaves flexible
- 47a. leaves < 22 cm long
- 48a. < 12 cm long *S. 'Lav. 5933'*
- 48b. > 12 cm long
- 49a. blade narrow - obscure cross-banding *S. concinna*
- 49b. blade wide - clear cross-banding
- 50a. petiole green *S. 'Lav 5949'*
- 50b. petiole color maroon *S. 'Lake Sibaya'*
- 50c. petiole color grape *S. 'Sudwalla Caves'*
- 45b. leaves sometimes petiolate
- 51a. < 12 cm long *S. 'Rosea-Grandis'*
- 51b. > 12 cm long *S. subspicata*
- 45c. leaves not or scarcely petiolate
- 52a. > 9 mm thick at mid-length (very thick leaves)
- 53a. edges wavy
- 54a. color silver - brightly cross-banded *S. kirkii* 'Silver Blue'
- 54b. color gray-green - obscurely cross-banded *S. kirkii* 'superclone'
- 53b. edges not wavy

- 55a. leaves leaned backwards - cross-banded *S. scimitariformis*
 55b. leaves prostrate - not cross-banded *S. humiflora*
- 52b. < 6 mm thick at mid-height (regular leaves)
 57a. leaves with edges more or less parallel
 58a. leaves flat
- 59a. leaves cross-banded
 60a. < 15 cm long *S. 'Javanica'*
 60b. > 25 cm long *S. zeylanica*
- 59b. not cross-banded *S. subtilis*
 59b. leaves very recurved
 61a. No. of leaves < 8 *S. roxburghiana*
 61b. No. of leaves > 8 *S. aethiopica*
- 57b. leaves lanceolate or oblanceolate
 62a. leaves rigid
- 63a. back of leaves not keeled
 64a. < 75 cm long *S. elliptica*
 65a. < 30 cm long
 65b. > 30 cm long
 66a. < 10 cm wide
 67a. w/ numerous longit. lines *S. 'The Dyke'*
 67b. w/o longitudinal lines *S. liberica*
 66b. > 12 cm wide
 68a. blotched markings *S. masoniana*
 68b. zig-zag markings *S. hyacinthoides*
- 64b. > 75 cm long
 69a. notably cross-banded
 70a. surface rough *S. abyssinica*
 70b. surface smooth *S. raffillii*
 69b. obscurely cross-banded

- 71a. surface rough *S. forskaoiliana*
 71b. surface smooth *S. grandis*
- 63b. back of leaves not keeled
 72a. edges wavy
- 73a. color grayish-green *S. kirkii*
 73b. color blackish-green *S. kirkii* var. *pulchra*
 73c. color copper-green *S. k. v. p.* 'Coppertone'
- 72b. edges not wavy *S.* 'Horwood'
- 62b. leaves not rigid
- 74a. leaves firmly flexible
- 75a. 1-2 leaves per growth *S. nitida*
 75b. 4-8 leaves per growth *S. frequens*
- 74b. leaves flexible
- 76a. distinctly cross-banded or blotched
- 77a. edges green *S. trifasciata*
 77b. edges reddish
- 78a. slightly petiolate *S. dawei*
 78b. not petiolate
- 79a. dark green - vividly blotched *S. aubrytiana*
 79b. medium green - blotched *S. longiflora*
- 76b. obscurely cross-banded or blotched
- 80a. edges green *S. senegambica*
 80b. edges reddish
- 81a. leaves 2-4 to a growth *S. thyrsiflora*
 81b. leaves 3-6 to a growth
- 82a. light green *S. conspicua*
 82b. medium green *S.* 'Chimanimani Mts.'
 82c. dark green *S.* 'Chipinge'

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Sansevieria Species Check-List

As I have noticed that many descriptions of sansevierias have incomplete information, I have developed a check-list, specifically targeted for *Sansevieria* on the following pages. This check-list is for a spike-like raceme inflorescence only, since capitate inflorescences are more particular and seem to need to be dealt on a one to one basis. No check-list can possibly be all-encompassing and therefore, I have provided observation space.

It has worked very well for my descriptions and I hope the motivated reader will also find it useful.

PLANT RECORD

Sansevieria

RHIZOME

No. date

underground mm

above ground mm

covered with sheaths

color below ground

above

STEM

length

LEAVES

number

mostly

length cm

width cm. at

thickness at bottom mm

at mid-length

keel thickness at bottom

petiolate

distichous

spreading

flopping

rigid

erect

rough smooth

shiny..... waxy

cross-banding.....

blotching.....

conspicuous

obscure

lines

impressed

interrupted

continuous

CHANNEL

channel-length/leaf-length

width at bottom.....

width at mid-length.....

compared to leaf width

shape

edge

color.....

membranous

markings

TIP

spine hard

withered

subulate

color

brown color at base

General observations

INFLORESCENCE**SPIKE-LIKE RACEME***Sansevieria*

No. date

FLOWER STALK

length cm
 diameter at basemm
 color
 cluster spacing mm

length w/o flowers cm
 at mid-height mm
 speckled (y/n)

Sterile Bracts

height variation mm to mm
 state (withered/green)

width variation mm to mm

Fertile Bracts

height mm
 width mm

FLOWERS

Cluster, Nos..
 tube length mm
 inflated at base to mm
 lobe length mm
 color
 tinged
 pedicel length mm
 pistil length mm
 filament length mm

mostly
 dia.. mm

width mm

to flower..... mm
 exceeds stamens by (+/-)..... mm
 stamen length mm

INFRUCTESCENCE

fruit size mm. x mm
 seed size mm. x mm

color
 fruit surface

General observations

.....

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Born in Buenos Aires, Argentina, B. Juan Chahinian is a California Civil and Structural Engineer with 30 years experience in the field of construction.

His interest in the genus *Sansevieria* dates from his younger years. However, he started studying the genus seriously twenty years ago.

Now retired in Florida, he has made several field trips to Africa, visited a large number of Botanic Gardens in four continents, written many articles and described 11 new species, all appearing in this book. His live plant collection database has over 800 entries.

He is the president of the International *Sansevieria* Society.

COVER: *Sansevieria frequens* at Tony and Rose Dyer's estate, Ngare-Ndare, Kenya.

BACK-COVER: *Sansevieria deserti*, Chicken Crest Farm, Harare, Zimbabwe.

